Tables

TABLE 1.--TEMPERATURE AND PRECIPITATION

(Recorded in the period 1967-80 at Baraga, 1956-80 at Alberta, and 1951-80 at Champion)

Month	Temperature						Precipitation				
	Average daily maximum	Average daily minimum	Average daily	2 years in 10 will have-- Maximum temperature higher than--	2 years in 10 will have-- Minimum temperature lower than--	Average number of growing degree days*	Average	2 years in 10 will have-- Less than--	2 years in 10 will have-- More than--	Average number of days with 0.10 inch or more	Average snowfall
	°F	°F	°F	°F	°F	Units	In	In	In		In
BARAGA:											
January---	15.9	2.3	9.1	43	-24	0	2.94	2.1	3.7	10	35.3
February--	18.2	-.4	8.9	52	-28	0	1.76	1.0	2.5	5	21.6
March-----	36.3	10.9	23.6	61	-19	0	2.59	1.2	3.8	6	18.9
April-----	50.0	24.8	37.4	84	0	18	2.11	1.4	2.7	6	7.5
May-------	66.8	34.6	50.7	91	18	113	3.52	2.3	4.7	7	1.5
June------	73.0	44.4	58.7	90	27	270	3.81	2.8	4.7	8	.0
July------	80.3	51.0	65.7	96	33	473	3.78	2.2	5.2	7	.0
August----	78.9	49.1	64.0	93	32	410	3.67	2.5	4.8	7	.0
September-	70.5	42.0	56.3	90	23	190	3.86	2.4	5.2	8	T**
October---	57.9	33.8	45.9	80	17	53	3.03	1.7	4.2	8	2.3
November--	40.7	23.4	32.0	67	-2	2	3.14	2.1	4.1	9	19.1
December--	30.2	10.4	20.3	47	-16	0	2.72	1.5	3.8	9	30.5
Year----	51.6	27.2	39.4	97	-30	1,529	36.93	33.0	40.7	90	136.7
ALBERTA:											
January---	20.3	2.3	11.3	42	-28	0	1.64	1.1	2.2	5	31.2
February--	24.8	2.1	13.5	51	-30	0	1.42	.9	1.9	5	26.0
March-----	36.5	12.3	24.4	61	-22	0	2.12	1.1	3.0	5	23.0
April-----	50.9	26.9	38.9	80	-2	28	2.28	1.5	3.0	6	8.9
May-------	65.0	38.7	51.9	89	18	164	3.75	2.4	5.0	8	2.1
June------	73.2	47.5	60.4	91	28	327	3.82	2.6	5.0	8	.0
July------	78.1	53.6	65.8	93	34	499	3.67	1.9	5.2	7	.0
August----	75.6	52.0	63.8	92	33	436	3.53	2.0	4.9	8	.0
September-	66.1	44.9	55.5	87	25	214	4.19	2.5	5.7	8	T**
October---	56.0	36.1	46.1	81	17	75	3.00	1.6	4.2	8	4.0
November--	38.0	23.5	30.7	64	-3	3	3.08	2.1	4.0	8	25.0
December--	25.7	10.0	17.9	47	-18	0	1.90	1.2	2.5	6	30.4
Year----	50.8	29.2	40.0	95	-32	1,746	34.40	29.5	39.1	82	150.6

See footnotes at end of table.

TABLE 1.--TEMPERATURE AND PRECIPITATION--Continued

Month	Temperature						Precipitation				
	Average daily maximum	Average daily minimum	Average daily	2 years in 10 will have-- Maximum temperature higher than--	2 years in 10 will have-- Minimum temperature lower than--	Average number of growing degree days*	Average	2 years in 10 will have-- Less than--	2 years in 10 will have-- More than--	Average number of days with 0.10 inch or more	Average snowfall
	°F	°F	°F	°F	°F	Units	In	In	In		In
CHAMPION:											
January---	21.2	0.4	10.8	41	-32	0	1.49	0.9	2.0	5	26.2
February--	25.8	.4	13.1	49	-34	0	1.36	.7	1.9	4	21.9
March-----	36.6	9.3	22.9	60	-27	0	2.13	1.1	3.0	5	23.5
April-----	50.9	23.9	37.4	80	-8	17	2.45	1.5	3.3	6	9.0
May-------	65.1	35.4	50.2	89	15	131	3.93	2.3	4.5	8	1.6
June------	74.2	45.2	59.7	91	26	308	3.86	2.4	5.2	8	.0
July------	78.4	50.2	64.3	92	32	450	3.80	2.4	5.1	7	.0
August----	76.1	48.9	62.5	91	31	397	2.54	1.8	5.0	7	.0
September-	66.2	41.8	54.0	87	22	177	4.27	2.4	5.9	8	T**
October---	55.3	33.2	44.2	79	14	50	3.39	1.6	4.1	7	4.0
November--	37.8	21.4	29.6	62	-6	2	2.53	1.7	3.3	7	23.0
December--	25.5	8.1	16.8	46	-23	0	1.91	1.3	2.5	6	28.8
Year----	51.1	26.5	38.8	94	-36	1,532	33.66	29.0	38.1	78	138.0

* A growing degree day is a unit of heat available for plant growth. It can be calculated by adding the maximum and minimum daily temperatures, dividing the sum by 2, and subtracting the temperature below which growth is minimal for the principal crops in the area (50 degrees F).

** Trace.

TABLE 2.--FREEZE DATES IN SPRING AND FALL

Probability	Temperature					
	24° F or lower		28° F or lower		32° F or lower	
	Near the shore	Inland	Near the shore	Inland	Near the shore	Inland
Last freezing temperature in spring:						
1 year in 10 later than--	Apr. 30	May 20	May 15	June 5	May 31	June 30
2 years in 10 later than--	Apr. 25	May 15	May 10	May 25	May 25	June 15
5 years in 10 later than--	Apr. 15	May 10	Apr. 30	May 20	May 20	June 5
First freezing temperature in fall:						
1 year in 10 earlier than--	Oct. 20	Sept. 20	Oct. 5	Sept. 10	Sept. 10	Aug. 31
2 years in 10 earlier than--	Oct. 31	Sept. 30	Oct. 15	Sept. 20	Sept. 20	Sept. 5
5 years in 10 earlier than--	Nov. 5	Oct. 10	Oct. 25	Sept. 25	Oct. 10	Sept. 10

TABLE 3.--GROWING SEASON

Probability	Daily minimum temperature during growing season					
	Higher than 24° F		Higher than 28° F		Higher than 32° F	
	Near the shore	Inland	Near the shore	Inland	Near the shore	Inland
	Days	Days	Days	Days	Days	Days
9 years in 10	185	125	160	95	125	65
8 years in 10	190	135	165	105	130	75
5 years in 10	200	150	175	120	140	90
2 years in 10	210	165	185	135	150	105
1 year in 10	215	175	190	145	155	115

TABLE 4.--ACREAGE AND PROPORTIONATE EXTENT OF THE SOILS

Map symbol	Soil name	Acres	Percent
10B	Watton silt loam, 1 to 8 percent slopes	3,845	0.7
10D	Watton silt loam, 8 to 20 percent slopes	315	0.1
11A	Alstad silt loam, 0 to 3 percent slopes	5,410	1.0
12	Alstad Variant mucky silt loam	980	0.2
13B	Grayling sand, 0 to 4 percent slopes	4,745	0.9
13D	Grayling sand, 2 to 15 percent slopes	3,870	0.7
14B	Rubicon sand, 0 to 8 percent slopes	5,060	0.9
14D	Rubicon sand, 8 to 15 percent slopes	2,080	0.4
14E	Rubicon sand, 15 to 35 percent slopes	410	0.1
14F	Rubicon sand, 35 to 60 percent slopes	390	0.1
15B	Champion cobbly silt loam, 1 to 8 percent slopes	37,805	6.8
15D	Champion cobbly silt loam, 8 to 15 percent slopes	12,730	2.3
15E	Champion cobbly silt loam, 15 to 35 percent slopes	4,320	0.8
16A	Croswell sand, 0 to 3 percent slopes	2,400	0.4
17A	Au Gres sand, 0 to 3 percent slopes	3,405	0.6
18	Kinross mucky sand	2,740	0.5
19	Dawson and Greenwood peats	10,780	1.9
20	Carbondale and Tacoosh mucks	56,170	10.1
21B	Allouez gravelly coarse sandy loam, 0 to 6 percent slopes	2,735	0.5
23B	Munising-Yalmer loamy sands, 1 to 8 percent slopes	22,210	4.0
23D	Munising-Yalmer loamy sands, 8 to 15 percent slopes	4,860	0.9
24B	Munising loamy sand, dissected, 1 to 8 percent slopes	1,890	0.3
24D	Munising loamy sand, dissected, 8 to 35 percent slopes	1,825	0.3
25A	Net silt loam, 0 to 3 percent slopes, stony	3,545	0.6
26	Witbeck muck, very stony	4,030	0.7
27B	Munising loamy sand, 1 to 8 percent slopes	18,880	3.4
29D	Grayling-Kinross complex, 0 to 15 percent slopes	1,230	0.2
30B	Kalkaska sand, 0 to 8 percent slopes	5,800	1.0
30D	Kalkaska sand, 8 to 15 percent slopes	1,240	0.2
30E	Kalkaska sand, 15 to 35 percent slopes	2,645	0.5
30F	Kalkaska sand, 35 to 70 percent slopes	275	*
31B	Kallio cobbly silt loam, 1 to 8 percent slopes	4,825	0.9
31D	Kallio cobbly silt loam, 8 to 20 percent slopes	595	0.1
32A	Kinross-Croswell complex, 0 to 3 percent slopes	3,145	0.6
33	Histosols and Aquents, ponded	6,175	1.1
34B	Ontonagon silt loam, 1 to 6 percent slopes	2,615	0.5
35A	Rudyard silty clay loam, 0 to 2 percent slopes	755	0.1
36A	Skanee loamy sand, 0 to 3 percent slopes	4,090	0.7
37	Pickford mucky silt loam	365	0.1
38B	Froberg silt loam, 1 to 6 percent slopes	2,085	0.4
39B	Munising-Skanee loamy sands, 0 to 6 percent slopes	19,420	3.5
43A	Moquah silt loam, 0 to 3 percent slopes	2,210	0.4
44B	Michigamme-Rock outcrop complex, 0 to 8 percent slopes	420	0.1
44D	Michigamme-Rock outcrop complex, 8 to 15 percent slopes	3,685	0.7
44E	Michigamme-Rock outcrop complex, 15 to 35 percent slopes	18,340	3.3
44F	Michigamme-Rock outcrop complex, 35 to 70 percent slopes	375	0.1
47B	Yalmer loamy sand, 1 to 8 percent slopes	2,260	0.4
48B	Rousseau fine sand, 0 to 8 percent slopes	930	0.2
49	Gay mucky fine sandy loam	5,580	1.0
50B	Abbaye loamy sand, 1 to 8 percent slopes	3,475	0.6
50D	Abbaye loamy sand, 8 to 15 percent slopes	320	0.1
51A	Zeba sandy loam, 0 to 3 percent slopes	2,315	0.4
52	Gay Variant mucky sandy loam	650	0.1
53B	Onota Variant channery sand, 0 to 4 percent slopes	285	*
54B	Waiska sand, 0 to 8 percent slopes	2,465	0.4
54D	Waiska sand, 8 to 15 percent slopes	430	0.1
56A	Deerton Variant sand, 0 to 2 percent slopes	370	0.1
57A	Assinins-Skanee complex, 0 to 3 percent slopes	7,340	1.3
59B	Amasa cobbly silt loam, 1 to 8 percent slopes	7,260	1.3
59D	Amasa cobbly silt loam, 8 to 15 percent slopes	4,390	0.8
59E	Amasa cobbly silt loam, 15 to 35 percent slopes	1,545	0.3
59F	Amasa cobbly silt loam, 35 to 70 percent slopes	280	*
60B	Fence silt loam, 1 to 8 percent slopes	1,315	0.2

See footnote at end of table.

TABLE 4.--ACREAGE AND PROPORTIONATE EXTENT OF THE SOILS--Continued

Map symbol	Soil name	Acres	Percent
61B	Ishpeming loamy sand, rocky, 1 to 8 percent slopes	455	0.1
61D	Ishpeming loamy sand, rocky, 8 to 15 percent slopes	320	0.1
62	Beaches	95	*
64	Pits	455	0.1
65B	Ocqueoc fine sand, 0 to 8 percent slopes	1,040	0.2
66B	Champion-Net complex, 0 to 6 percent slopes	14,940	2.6
67	Witbeck-Tacoosh complex, very stony	14,125	2.5
68B	Amasa fine sandy loam, 1 to 8 percent slopes	4,225	0.8
68D	Amasa fine sandy loam, 8 to 15 percent slopes	620	0.1
69E	Yalmer-Munising loamy sands, 15 to 35 percent slopes	1,540	0.3
69F	Yalmer-Munising loamy sands, 35 to 60 percent slopes	1,370	0.2
70	Winterfield fine sandy loam	890	0.2
71A	Pelkie loamy very fine sand, 0 to 3 percent slopes	1,830	0.3
72	Sturgeon silt loam	3,635	0.7
73	Arnheim mucky silt loam	6,415	1.2
74B	Waiska Variant very channery sand, 0 to 4 percent slopes	320	0.1
75D	Fence silt loam, dissected, 8 to 35 percent slopes	585	0.1
76A	Allendale loamy sand, 0 to 3 percent slopes	255	*
77A	Udipsamments and Udorthents, nearly level	305	0.1
78B	Champion-Michigamme cobbly silt loams, rocky, 1 to 8 percent slopes	5,425	1.0
78D	Champion-Michigamme cobbly silt loams, rocky, 8 to 15 percent slopes	17,145	3.1
78E	Champion-Michigamme cobbly silt loams, rocky, 15 to 35 percent slopes	23,895	4.3
79B	Nunica silt loam, 1 to 6 percent slopes	2,330	0.4
79D	Nunica silt loam, 6 to 15 percent slopes	230	*
80A	Bowers silt loam, 0 to 3 percent slopes	1,265	0.2
81A	Burt Variant very gravelly loamy sand, 0 to 2 percent slopes	635	0.1
82	Roscommon Variant mucky sand	440	0.1
83E	Nunica and Ontonagon soils, 15 to 40 percent slopes	420	0.1
84A	Channing fine sandy loam, 0 to 3 percent slopes	600	0.1
86A	Net-Witbeck complex, 0 to 3 percent slopes	4,540	0.8
87A	Skanee-Gay complex, 0 to 3 percent slopes	3,455	0.6
88B	Munising-Yalmer loamy sands, dissected, 1 to 8 percent slopes	7,975	1.4
88D	Munising-Yalmer loamy sands, dissected, 8 to 35 percent slopes	4,445	0.8
88E	Yalmer-Munising loamy sands, dissected, 15 to 60 percent slopes	2,085	0.4
91B	Keweenaw-Kalkaska complex, 1 to 8 percent slopes	5,425	1.0
91D	Keweenaw-Kalkaska complex, 8 to 15 percent slopes	6,450	1.2
91E	Keweenaw-Kalkaska complex, 15 to 35 percent slopes	3,230	0.6
92B	Keweenaw-Kalkaska complex, dissected, 1 to 8 percent slopes	1,165	0.2
92D	Keweenaw-Kalkaska complex, dissected, 8 to 35 percent slopes	2,550	0.5
92E	Keweenaw-Kalkaska complex, dissected, 15 to 70 percent slopes	2,820	0.5
93B	Deerton and Abbaye soils, dissected, 1 to 8 percent slopes	540	0.1
93D	Deerton and Abbaye soils, dissected, 8 to 35 percent slopes	390	0.1
94B	Deerton sand, 1 to 8 percent slopes	320	0.1
95B	Amasa fine sandy loam, sandy substratum, 1 to 8 percent slopes	1,405	0.3
95D	Amasa fine sandy loam, sandy substratum, 8 to 15 percent slopes	230	*
96A	Richter Variant very fine sandy loam, 0 to 3 percent slopes	920	0.2
98A	Burt Variant-Burt complex, 0 to 2 percent slopes	405	0.1
99B	Rubicon-Rousseau-Ocqueoc complex, 1 to 8 percent slopes	2,365	0.4
99D	Rubicon-Rousseau-Ocqueoc complex, 8 to 15 percent slopes	975	0.2
100B	Amasa cobbly silt loam, rocky, 1 to 8 percent slopes	795	0.1
100D	Amasa cobbly silt loam, rocky, 8 to 15 percent slopes	1,420	0.3
100E	Amasa cobbly silt loam, rocky, 15 to 35 percent slopes	840	0.2
101E	Peshekee-Rock outcrop complex, 15 to 35 percent slopes	1,370	0.2
101F	Peshekee-Rock outcrop complex, 35 to 70 percent slopes	1,830	0.3
102A	Channing fine sandy loam, 0 to 3 percent slopes, stony	1,250	0.2
105	Pits and Dumps, mine	170	*
106B	Yalmer loamy sand, rocky, 1 to 8 percent slopes	260	*
107F	Rousseau-Ocqueoc fine sands, dissected, 15 to 70 percent slopes	7,635	1.4
108B	Champion-Net-Michigamme complex, rocky, 0 to 8 percent slopes	4,985	0.9
109F	Rousseau-Fence-Ocqueoc complex, dissected, 15 to 70 percent slopes	1,730	0.3
110E	Ishpeming-Rock outcrop complex, 15 to 35 percent slopes	510	0.1
111B	Yalmer-Assinins complex, 0 to 6 percent slopes	5,665	1.0
112A	Assinins sand, 0 to 3 percent slopes	1,220	0.2

See footnote at end of table.

TABLE 4.--ACREAGE AND PROPORTIONATE EXTENT OF THE SOILS--Continued

Map symbol	Soil name	Acres	Percent
113B	Petticoat cobbly silt loam, 1 to 8 percent slopes	4,955	0.9
113D	Petticoat cobbly silt loam, 8 to 15 percent slopes	300	0.1
114B	Peshekee Variant very flaggy very fine sandy loam, rocky, 0 to 8 percent slopes	1,070	0.2
114E	Peshekee Variant very flaggy very fine sandy loam, rocky, 15 to 35 percent slopes	200	*
115D	Munising-Michigamme complex, rocky, 8 to 15 percent slopes	700	0.1
115E	Munising-Michigamme complex, rocky, 15 to 35 percent slopes	1,055	0.2
116F	Udorthents and Udipsamments, very steep	530	0.1
	Water areas less than 40 acres in size	2,395	0.4
	Water areas more than 40 acres in size	17,708	3.2
	Total	555,018	100.0

* Less than 0.1 percent.

TABLE 5.--PRIME FARMLAND

(Only the soils considered prime farmland are listed. Urban or built-up areas of the soils listed are not considered prime farmland. If a soil is prime farmland only under certain conditions, the conditions are specified in parentheses after the soil name)

Map symbol	Soil name
10B	Watton silt loan, 1 to 8 percent slopes
11A	Alstad silt loam, 0 to 3 percent slopes (where drained)
43A	Moquah silt loam, 0 to 3 percent slopes
60B	Fence silt loam, 1 to 8 percent slopes
68B	Amasa fine sandy loam, 1 to 8 percent slopes
72	Sturgeon silt loam (where drained)
79B	Nunica silt loam, 1 to 6 percent slopes
80A	Bowers silt loam, 0 to 3 percent slopes (where drained)
95B	Amasa fine sandy loam, sandy substratum, 1 to 8 percent slopes
96A	Richter Variant very fine sandy loam, 0 to 3 percent slopes (where drained)

TABLE 6.--CAPABILITY CLASSES AND SUBCLASSES

(Miscellaneous areas are excluded. Absence of an entry indicates no acreage)

Class	Total acreage	Major management concerns (Subclass)		
		Erosion (e)	Wetness (w)	Soil problem (s)
		Acres	Acres	Acres
I	---	---	---	---
II	88,088	63,027	25,061	---
III	64,510	24,307	17,733	22,470
IV	20,602	320	4,665	15,617
V	14,115	---	14,115	---
VI	197,019	7,064	44,896	145,059
VII	135,716	18,753	46,195	70,768
VIII	---	---	---	---

TABLE 7.--WOODLAND MANAGEMENT AND PRODUCTIVITY

(Only the soils suitable for production of commercial trees are listed. Absence of an entry indicates that information was not available)

Soil name and map symbol	Ordination symbol	Management concerns: Erosion hazard	Equipment limitation	Seedling mortality	Windthrow hazard	Potential productivity: Common trees	Site index	Volume*	Trees to plant
10B, 10D-------- Watton	3A	Slight	Slight	Slight	Slight	Sugar maple--------- Yellow birch-------- American basswood--- Balsam fir---------- Quaking aspen------- White spruce-------- Red maple----------	62 --- --- --- --- --- ---	39 --- --- --- --- --- ---	Red pine, white spruce.
11A---------- Alstad	3W	Slight	Moderate	Slight	Moderate	Red maple---------- American basswood--- American elm-------- Quaking aspen------- Sugar maple--------- Bigtooth aspen------	65 --- --- --- --- ---	40 --- --- --- --- ---	Eastern white pine, white spruce, black spruce.
12---------- Alstad Variant	6W	Slight	Severe	Moderate	Moderate	Balsam fir---------- Northern white-cedar Red maple---------- Black spruce-------- Bigtooth aspen------ Quaking aspen------- Yellow birch-------- Black ash---------- Paper birch--------- American elm--------	45 --- 55 --- --- --- --- --- --- ---	83 --- 35 --- --- --- --- --- --- ---	
13B, 13D-------- Grayling	5S	Slight	Moderate	Severe	Slight	Jack pine---------- Northern pin oak---- Northern red oak---- Red pine---------- Quaking aspen-------	48 43 43 --- ---	70 28 28 --- ---	Jack pine, red pine.
14B, 14D-------- Rubicon	4S	Slight	Moderate	Moderate	Slight	Quaking aspen------- Jack pine---------- Red pine---------- Bigtooth aspen------ Balsam fir---------- Northern red oak---- Red maple---------- Paper birch--------- Eastern white pine--	60 48 50 --- --- --- --- --- 45	64 70 75 --- --- --- --- --- 75	Red pine, jack pine.
14E---------- Rubicon	4R	Moderate	Moderate	Moderate	Slight	Quaking aspen------- Jack pine---------- Red pine---------- Bigtooth aspen------ Balsam fir---------- Northern red oak---- Red maple---------- Paper birch--------- Eastern white pine--	60 48 50 --- --- --- --- --- 45	64 70 75 --- --- --- --- --- 75	Red pine, jack pine.

See footnotes at end of table.

TABLE 7.--WOODLAND MANAGEMENT AND PRODUCTIVITY--Continued

Soil name and map symbol	Ordination symbol	Management concerns: Erosion hazard	Equipment limitation	Seedling mortality	Windthrow hazard	Potential productivity: Common trees	Site index	Volume*	Trees to plant
14F---------- Rubicon	4R	Severe	Severe	Moderate	Slight	Quaking aspen-------	60	64	Red pine, jack pine.
						Jack pine----------	48	75	
						Red pine----------	50	75	
						Bigtooth aspen------	---	---	
						Balsam fir----------	---	---	
						Northern red oak----	---	---	
						Red maple----------	---	---	
						Paper birch---------	---	---	
						Eastern white pine--	45	75	
15B, 15D-------- Champion	3W	Slight	Moderate	Slight	Moderate	Sugar maple---------	60	38	White spruce, eastern white pine.
						American basswood---	---	---	
						Yellow birch--------	60	38	
						Eastern hemlock-----	---	---	
						Balsam fir----------	---	---	
						Quaking aspen-------	---	---	
						Red maple----------	---	---	
						Bigtooth aspen------	---	---	
						Black cherry--------	---	---	
						White spruce--------	---	---	
15E---------- Champion	3R	Moderate	Moderate	Slight	Moderate	Sugar maple---------	60	38	Eastern white pine, white spruce.
						Yellow birch--------	60	38	
						Quaking aspen-------	---	---	
						Red maple----------	---	---	
						Balsam fir----------	---	---	
						Bigtooth aspen------	---	---	
						Black cherry--------	---	---	
						White spruce--------	---	---	
						Eastern hemlock-----	---	---	
						American basswood---	---	---	
16A---------- Croswell	5S	Slight	Slight	Moderate	Slight	Quaking aspen-------	68	78	Red pine, white spruce.
						Red pine----------	55	88	
						Jack pine----------	53	78	
						Balsam fir----------	---	---	
						White spruce--------	---	---	
						Bigtooth aspen------	---	---	
						Red maple----------	---	---	
17A---------- Au Gres	6W	Slight	Moderate	Slight	Moderate	Quaking aspen-------	70	81	White spruce, Norway spruce.
						Bigtooth aspen------	---	---	
						Balsam fir----------	---	---	
						Paper birch---------	---	---	
						White spruce--------	---	---	
						Red maple----------	---	---	
						Eastern hemlock-----	---	---	
						Eastern white pine--	---	---	
						Sugar maple---------	---	---	
18---------- Kinross	2W	Slight	Severe	Severe	Severe	Quaking aspen-------	45	32	
						Black spruce--------	---	---	
						Northern white-cedar	---	---	
						Balsam fir----------	---	---	
						Red maple----------	---	---	

See footnotes at end of table.

TABLE 7.--WOODLAND MANAGEMENT AND PRODUCTIVITY--Continued

Soil name and map symbol	Ordination symbol	Management concerns: Erosion hazard	Equipment limitation	Seedling mortality	Windthrow hazard	Potential productivity: Common trees	Site index	Volume*	Trees to plant
19**:									
Dawson	2W	Slight	Severe	Severe	Severe	Black spruce	15	23	
						Tamarack	---	---	
Greenwood	2W	Slight	Severe	Severe	Severe	Black spruce	15	23	
						Balsam fir	39	69	
						Tamarack	---	---	
20**:									
Carbondale	5W	Slight	Severe	Severe	Severe	Balsam fir	40	71	
						Black spruce	15	23	
						Northern white-cedar	---	---	
						Tamarack	---	---	
						Red maple	---	---	
Tacoosh	5W	Slight	Severe	Severe	Severe	Balsam fir	40	71	
						White spruce	40	71	
						Black ash	---	---	
						Black spruce	---	---	
						Red maple	---	---	
						Tamarack	---	---	
						Quaking aspen	---	---	
						Northern white-cedar	---	---	
21B Allouez	3A	Slight	Slight	Slight	Slight	Sugar maple	65	40	White spruce, red pine.
						American basswood	---	---	
						Quaking aspen	---	---	
						Yellow birch	---	---	
						White spruce	---	---	
						Eastern hemlock	---	---	
23B**, 23D**:									
Munising	3W	Slight	Moderate	Slight	Moderate	Sugar maple	60	38	Norway spruce, white spruce, red pine.
						Yellow birch	---	---	
						Eastern hemlock	---	---	
						Red maple	---	---	
						Bigtooth aspen	---	---	
						Balsam fir	---	---	
						Paper birch	---	---	
						White spruce	---	---	
						Quaking aspen	---	---	
Yalmer	3D	Slight	Moderate	Moderate	Moderate	Sugar maple	61	38	Red pine, Norway spruce.
						Yellow birch	---	---	
						Balsam fir	---	---	
						Eastern hemlock	---	---	
						Red maple	61	38	
						Paper birch	---	---	
						Quaking aspen	---	---	
24B Munising	3R	Slight	Moderate	Slight	Moderate	Sugar maple	60	38	Norway spruce, white spruce, red pine.
						Yellow birch	---	---	
						Eastern hemlock	---	---	
						Red maple	---	---	
						Bigtooth aspen	---	---	
						Balsam fir	---	---	
						Paper birch	---	---	
						White spruce	---	---	
						Quaking aspen	---	---	

See footnotes at end of table.

TABLE 7.--WOODLAND MANAGEMENT AND PRODUCTIVITY--Continued

Soil name and map symbol	Ordination symbol	Management concerns: Erosion hazard	Equipment limitation	Seedling mortality	Windthrow hazard	Potential productivity: Common trees	Site index	Volume*	Trees to plant
24D---------- Munising	3R	Moderate	Moderate	Slight	Moderate	Sugar maple---------	60	38	Norway spruce, white spruce, red pine.
						Yellow birch--------	---	---	
						Eastern hemlock-----	---	---	
						Red maple----------	---	---	
						Bigtooth aspen------	---	---	
						Balsam fir----------	---	---	
						Paper birch---------	---	---	
						White spruce--------	---	---	
						Quaking aspen-------	---	---	
25A---------- Net	2X	Slight	Moderate	Slight	Moderate	Red maple----------	57	36	White spruce, eastern white pine.
						Balsam fir----------	58	113	
						Bigtooth aspen------	---	---	
						Quaking aspen-------	---	---	
						White spruce--------	---	---	
						Paper birch---------	53	53	
						Yellow birch--------	---	---	
						Eastern hemlock-----	---	---	
26---------- Witbeck	3X	Slight	Severe	Severe	Severe	Black spruce--------	33	44	
						Quaking aspen-------	50	43	
						White spruce--------	---	---	
						Balsam fir----------	48	90	
						Black ash----------	---	---	
						Yellow birch--------	---	---	
						Red maple----------	---	---	
						Northern white-cedar	---	---	
27B---------- Munising	3W	Slight	Moderate	Slight	Moderate	Sugar maple---------	60	38	Norway spruce, white spruce, red pine.
						Yellow birch--------	---	---	
						Eastern hemlock-----	---	---	
						Red maple----------	---	---	
						Bigtooth aspen------	---	---	
						Balsam fir----------	---	---	
						Paper birch---------	---	---	
						White spruce--------	---	---	
						Quaking aspen-------	---	---	
29D**:									
Grayling-------	5S	Slight	Moderate	Severe	Slight	Jack pine----------	48	70	Jack pine, red pine.
						Northern pin oak----	43	28	
						Northern red oak----	43	28	
						Red pine----------	---	---	
						Quaking aspen-------	---	---	
Kinross--------	2W	Slight	Severe	Severe	Severe	Quaking aspen-------	45	32	
						Black spruce--------	---	---	
						Northern white-cedar	---	---	
						Balsam fir----------	---	---	
						Red maple----------	---	---	
30B, 30D-------- Kalkaska	3S	Slight	Moderate	Moderate	Slight	Sugar maple---------	64	40	Red pine, jack pine.
						Quaking aspen-------	---	---	
						Red pine----------	---	---	
						Yellow birch--------	---	---	
						Eastern hemlock-----	---	---	
						Paper birch---------	---	---	
						Northern red oak----	---	---	
						Red maple----------	63	39	
						Bigtooth aspen------	---	---	

See footnotes at end of table.

TABLE 7.--WOODLAND MANAGEMENT AND PRODUCTIVITY--Continued

Soil name and map symbol	Ordination symbol	Management concerns: Erosion hazard	Equipment limitation	Seedling mortality	Windthrow hazard	Potential productivity: Common trees	Site index	Volume*	Trees to plant
30E---------- Kalkaska	3R	Moderate	Moderate	Moderate	Slight	Sugar maple---------	64	64	Red pine, jack pine.
						Quaking aspen-------	---	---	
						Red pine----------	---	---	
						Yellow birch--------	---	---	
						Eastern hemlock-----	---	---	
						Paper birch---------	---	---	
						Northern red oak----	---	---	
						Red maple----------	63	39	
						Bigtooth aspen------	---	---	
30F---------- Kalkaska	3R	Severe	Severe	Moderate	Slight	Sugar maple---------	64	40	Red pine, jack pine.
						Quaking aspen-------	---	---	
						Red pine----------	---	---	
						Yellow birch--------	---	---	
						Eastern hemlock-----	---	---	
						Paper birch---------	---	---	
						Northern red oak----	---	---	
						Red maple----------	63	39	
						Bigtooth aspen------	---	---	
31B, 31D-------- Kallio	3W	Slight	Moderate	Moderate	Moderate	Sugar maple---------	62	39	Eastern white pine, white spruce.
						Yellow birch--------	---	---	
						Quaking aspen-------	---	---	
						Eastern hemlock-----	---	---	
						Balsam fir----------	---	---	
						Red maple----------	---	---	
						American basswood---	---	---	
32A**:									
Kinross--------	2W	Slight	Severe	Severe	Severe	Quaking aspen-------	45	32	
						Black spruce--------	---	---	
						Tamarack----------	---	---	
						Northern white-cedar	---	---	
						Balsam fir----------	---	---	
						Red maple----------	---	---	
Croswell-------	5S	Slight	Slight	Moderate	Slight	Quaking aspen-------	68	78	Red pine, white spruce.
						Red pine----------	55	88	
						Jack pine----------	53	78	
						Balsam fir----------	---	---	
						White spruce--------	---	---	
						Bigtooth aspen------	---	---	
						Red maple----------	---	---	
34B---------- Ontonagon	2C	Slight	Moderate	Moderate	Moderate	Red maple----------	55	35	White spruce, Norway spruce, eastern white pine.
						Yellow birch--------	---	---	
						Northern white-cedar	---	---	
						Eastern hemlock-----	---	---	
						White spruce--------	---	---	
						Balsam fir----------	---	---	
35A---------- Rudyard	6W	Slight	Moderate	Moderate	Moderate	White spruce--------	45	84	White spruce, eastern white pine.
						Balsam fir----------	45	83	
						Quaking aspen-------	---	---	
						Northern white-cedar	---	---	
						Eastern hemlock-----	---	---	
						Black ash----------	---	---	
						Red maple----------	---	---	
						American basswood---	---	---	

See footnotes at end of table.

TABLE 7.--WOODLAND MANAGEMENT AND PRODUCTIVITY--Continued

Soil name and map symbol	Ordination symbol	Management concerns: Erosion hazard	Equipment limitation	Seedling mortality	Windthrow hazard	Potential productivity: Common trees	Site index	Volume*	Trees to plant
36A---------- Skanee	3W	Slight	Severe	Moderate	Severe	Red maple----------	60	38	White spruce, eastern white pine.
						Sugar maple---------	60	38	
						Yellow birch--------	---	---	
						Eastern hemlock-----	---	---	
						Balsam fir----------	---	---	
						Quaking aspen-------	---	---	
						Paper birch---------	---	---	
						Northern white-cedar	---	---	
37---------- Pickford	6W	Slight	Severe	Severe	Severe	White spruce--------	45	83	
						Balsam fir----------	45	84	
						Paper birch---------	---	---	
						Eastern hemlock-----	---	---	
						Quaking aspen-------	---	---	
						Northern white-cedar	---	---	
						Red maple----------	---	---	
38B---------- Froberg	3C	Slight	Moderate	Slight	Severe	Sugar maple---------	60	38	White spruce, Norway spruce.
						Quaking aspen-------	---	---	
						Yellow birch--------	---	---	
						White spruce--------	---	---	
						Red maple----------	---	---	
						Eastern hemlock-----	---	---	
						Balsam fir----------	---	---	
39B**:									
Munising-------	3W	Slight	Moderate	Slight	Moderate	Sugar maple---------	60	38	Norway spruce, white spruce, red pine.
						Yellow birch--------	---	---	
						Eastern hemlock-----	---	---	
						Red maple----------	---	---	
						Bigtooth aspen------	---	---	
						Balsam fir----------	---	---	
						Paper birch---------	---	---	
						White spruce--------	---	---	
						Quaking aspen-------	---	---	
Skanee---------	3W	Slight	Severe	Moderate	Severe	Red maple----------	60	38	White spruce, eastern white pine.
						Sugar maple---------	60	38	
						Yellow birch--------	---	---	
						Eastern hemlock-----	---	---	
						Balsam fir----------	---	---	
						Quaking aspen-------	---	---	
						Paper birch---------	---	---	
						Northern white-cedar	---	---	
43A---------- Moquah	3A	Slight	Slight	Slight	Slight	Red maple----------	60	38	Red pine, white spruce.
						American basswood---	---	---	
						White ash----------	---	---	
						White spruce--------	---	---	
						Eastern white pine--	---	---	
						Sugar maple---------	66	41	
44B**, 44D**:									
Michigamme-----	3W	Slight	Moderate	Slight	Moderate	Sugar maple---------	60	38	White spruce, eastern white pine.
						Yellow birch--------	60	38	
						Balsam fir----------	---	---	
						Eastern hemlock-----	---	---	
						Bigtooth aspen------	---	---	
						Red maple----------	---	---	
						White spruce--------	---	---	
						Black cherry--------	---	---	

See footnotes at end of table.

TABLE 7.--WOODLAND MANAGEMENT AND PRODUCTIVITY--Continued

Soil name and map symbol	Ordination symbol	Management concerns: Erosion hazard	Equipment limitation	Seedling mortality	Windthrow hazard	Potential productivity: Common trees	Site index	Volume*	Trees to plant
44B**, 44D**:									
Rock outcrop.									
44E**:									
Michigamme-----	3R	Moderate	Moderate	Slight	Slight	Sugar maple---------	60	38	White spruce, eastern white pine.
						Yellow birch--------	60	38	
						Balsam fir----------	---	---	
						Eastern hemlock-----	---	---	
						Bigtooth aspen------	---	---	
						Red maple----------	---	---	
						White spruce--------	---	---	
						Black cherry--------	---	---	
Rock outcrop.									
44F**:									
Michigamme-----	3R	Severe	Severe	Slight	Slight	Sugar maple---------	60	38	White spruce, eastern white pine.
						Yellow birch--------	60	38	
						Balsam fir----------	---	---	
						Eastern hemlock-----	---	---	
						Bigtooth aspen------	---	---	
						Red maple----------	---	---	
						White spruce--------	---	---	
						Black cherry--------	---	---	
Rock outcrop.									
47B---------- Yalmer	3D	Slight	Moderate	Moderate	Moderate	Sugar maple---------	61	38	Red pine, Norway spruce.
						Yellow birch--------	---	---	
						Balsam fir----------	---	---	
						Eastern hemlock-----	---	---	
						Red maple----------	61	38	
						Paper birch---------	---	---	
						Quaking aspen-------	---	---	
48B---------- Rousseau	5S	Slight	Moderate	Moderate	Slight	Quaking aspen-------	65	73	Red pine, jack pine.
						Sugar maple---------	60	38	
						Red maple----------	---	---	
						Balsam fir----------	---	---	
						Northern red oak----	---	---	
						Eastern hemlock-----	---	---	
						Red pine----------	---	---	
						Paper birch---------	65	73	
						Yellow birch--------	---	---	
						Bigtooth aspen------	---	---	
49---------- Gay	7W	Slight	Severe	Moderate	Severe	Balsam fir----------	53	102	
						Red maple----------	---	---	
						Northern white-cedar	---	---	
						White spruce--------	---	---	
						Paper birch---------	---	---	
						Eastern hemlock-----	---	---	
						Yellow birch--------	---	---	
						Quaking aspen-------	---	---	
50B, 50D-------- Abbaye	3S	Slight	Moderate	Moderate	Moderate	Sugar maple---------	62	38	White spruce, red pine.
						Yellow birch--------	---	---	
						Eastern hemlock-----	---	---	
						Red maple----------	---	---	
						Quaking aspen-------	---	---	
						Balsam fir----------	---	---	
						Paper birch---------	---	---	

See footnotes at end of table.

TABLE 7.--WOODLAND MANAGEMENT AND PRODUCTIVITY--Continued

Soil name and map symbol	Ordination symbol	Management concerns: Erosion hazard	Equipment limitation	Seedling mortality	Windthrow hazard	Potential productivity: Common trees	Site index	Volume*	Trees to plant
51A---------- Zeba	2W	Slight	Moderate	Slight	Moderate	Red maple----------	55	35	White spruce, eastern white pine.
						Yellow birch--------	---	---	
						Balsam fir----------	---	---	
						White spruce--------	---	---	
						Bigtooth aspen------	---	---	
						Paper birch---------	---	---	
						Quaking aspen-------	---	---	
						Eastern hemlock-----	---	---	
						Sugar maple---------	---	---	
52---------- Gay Variant	2W	Slight	Severe	Moderate	Severe	Red maple----------	55	35	
						Balsam fir----------	---	---	
						Northern white-cedar	---	---	
						Yellow birch--------	---	---	
						Quaking aspen-------	---	---	
						Eastern hemlock-----	---	---	
53B---------- Onota Variant	3D	Slight	Slight	Moderate	Severe	Red maple----------	60	38	Eastern white pine, white spruce.
						Paper birch---------	---	---	
						Yellow birch--------	---	---	
						Balsam fir----------	---	---	
						Eastern hemlock-----	---	---	
						Sugar maple---------	---	---	
						Quaking aspen-------	---	---	
54B, 54D-------- Waiska	3S	Slight	Slight	Moderate	Slight	Sugar maple---------	61	38	Red pine, jack pine.
						Eastern hemlock-----	---	---	
						Quaking aspen-------	71	82	
						Paper birch---------	---	---	
						American basswood---	---	---	
						Yellow birch--------	---	---	
						Balsam fir----------	---	---	
56A---------- Deerton Variant	2W	Slight	Moderate	Slight	Moderate	Red maple----------	55	35	Eastern white pine, white spruce.
						Yellow birch--------	---	---	
						Quaking aspen-------	---	---	
						Balsam fir----------	---	---	
						Paper birch---------	---	---	
						Eastern hemlock-----	---	---	
						Northern white-cedar	---	---	
57A**:									
Assinins-------	3W	Slight	Moderate	Slight	Moderate	Red maple----------	65	40	White spruce, Norway spruce.
						American basswood---	---	---	
						Eastern hemlock-----	---	---	
						Bigtooth aspen------	---	---	
						Balsam fir----------	---	---	
						Yellow birch--------	---	---	
						Quaking aspen-------	---	---	
						White spruce--------	---	---	
						Sugar maple---------	---	---	
Skanee---------	3W	Slight	Severe	Moderate	Severe	Red maple----------	60	38	White spruce, eastern white pine.
						Sugar maple---------	60	38	
						Yellow birch--------	---	---	
						Eastern hemlock-----	---	---	
						Balsam fir----------	---	---	
						Quaking aspen-------	---	---	
						Paper birch---------	---	---	
						Northern white-cedar	---	---	

See footnotes at end of table.

TABLE 7.--WOODLAND MANAGEMENT AND PRODUCTIVITY--Continued

Soil name and map symbol	Ordination symbol	Management concerns: Erosion hazard	Equipment limitation	Seedling mortality	Windthrow hazard	Potential productivity: Common trees	Site index	Volume*	Trees to plant
59B, 59D-------- Amasa	3A	Slight	Slight	Slight	Slight	Sugar maple--------- Quaking aspen------- Yellow birch-------- Eastern hemlock----- Balsam fir---------- Red maple---------- Bigtooth aspen------ Black cherry--------	62 70 --- --- --- --- --- ---	39 81 --- --- --- --- --- ---	White spruce, red pine, eastern white pine.
59E---------- Amasa	3R	Moderate	Moderate	Slight	Slight	Sugar maple--------- Quaking aspen------- Yellow birch-------- Eastern hemlock----- Balsam fir---------- Red maple---------- Bigtooth aspen------ Black cherry--------	62 70 --- --- --- --- --- ---	39 81 --- --- --- --- --- ---	White spruce, red pine, eastern white pine.
59F---------- Amasa	3R	Severe	Severe	Slight	Slight	Sugar maple--------- Quaking aspen------- Yellow birch-------- Eastern hemlock----- Balsam fir---------- Red maple---------- Bigtooth aspen------ Black cherry--------	62 70 --- --- --- --- --- ---	39 81 --- --- --- --- --- ---	White spruce, red pine, eastern white pine.
60B---------- Fence	3A	Slight	Slight	Slight	Slight	Sugar maple--------- Yellow birch-------- American basswood--- Quaking aspen------- Bigtooth aspen------ Eastern hemlock----- Balsam fir----------	65 --- --- --- --- --- ---	40 --- --- --- --- --- ---	Red pine, eastern white pine, white spruce.
61B, 61D-------- Ishpeming	5S	Slight	Slight	Moderate	Slight	Quaking aspen------- Balsam fir---------- Red maple---------- Eastern hemlock----- Paper birch--------- Bigtooth aspen------ Sugar maple--------- Yellow birch-------- American basswood---	63 --- --- --- 60 68 --- --- ---	70 --- --- --- 65 78 --- --- ---	Red pine, jack pine.
65B---------- Ocqueoc	3S	Slight	Moderate	Moderate	Slight	Sugar maple--------- Yellow birch-------- Quaking aspen------- Eastern white pine-- Red pine----------	63 --- --- --- ---	39 --- --- --- ---	Red pine, white spruce.
66B**: Champion-------	3W	Slight	Moderate	Slight	Moderate	Sugar maple--------- American basswood--- Yellow birch-------- Eastern hemlock----- Balsam fir---------- Quaking aspen------- Red maple---------- Bigtooth aspen------ Black cherry-------- White spruce--------	60 --- 60 --- --- --- --- --- --- ---	38 --- 38 --- --- --- --- --- --- ---	White spruce, eastern white pine.

See footnotes at end of table.

TABLE 7.--WOODLAND MANAGEMENT AND PRODUCTIVITY--Continued

Soil name and map symbol	Ordination symbol	Management concerns: Erosion hazard	Equipment limitation	Seedling mortality	Windthrow hazard	Potential productivity: Common trees	Site index	Volume*	Trees to plant
66B**:									
Net	2X	Slight	Moderate	Slight	Moderate	Red maple	57	36	White spruce, eastern white pine.
						Balsam fir	58	113	
						Bigtooth aspen	---	---	
						Quaking aspen	---	---	
						White spruce	---	---	
						Paper birch	53	53	
						Yellow birch	---	---	
						Eastern hemlock	---	---	
67**:									
Witbeck	3X	Slight	Severe	Severe	Severe	Black spruce	33	44	
						Quaking aspen	50	43	
						White spruce	---	---	
						Balsam fir	48	90	
						Black ash	---	---	
						Yellow birch	---	---	
						Red maple	---	---	
						Northern white-cedar	---	---	
Tacoosh	5W	Slight	Severe	Severe	Severe	Balsam fir	40	71	
						White spruce	40	72	
						Black ash	---	---	
						Black spruce	---	---	
						Red maple	---	---	
						Tamarack	---	---	
						Quaking aspen	---	---	
						Northern white-cedar	---	---	
68B, 68D Amasa	2A	Slight	Slight	Slight	Slight	Sugar maple	55	35	White spruce, red pine.
						Quaking aspen	65	66	
						Yellow birch	---	---	
						Eastern hemlock	---	---	
						Balsam fir	---	---	
						Red maple	---	---	
						Bigtooth aspen	---	---	
						Black cherry	---	---	
69E**:									
Yalmer	3R	Moderate	Moderate	Moderate	Moderate	Sugar maple	61	38	White spruce, red pine.
						Balsam fir	---	---	
						Yellow birch	---	---	
						Eastern hemlock	---	---	
						Quaking aspen	---	---	
						Paper birch	---	---	
						Red maple	61	38	
Munising	3R	Moderate	Moderate	Slight	Moderate	Sugar maple	60	38	Norway spruce, white spruce, red pine.
						Yellow birch	---	---	
						Eastern hemlock	---	---	
						Red maple	---	---	
						Bigtooth aspen	---	---	
						Balsam fir	---	---	
						Paper birch	---	---	
						White spruce	---	---	
						Quaking aspen	---	---	

See footnotes at end of table.

TABLE 7.--WOODLAND MANAGEMENT AND PRODUCTIVITY--Continued

Soil name and map symbol	Ordination symbol	Management concerns: Erosion hazard	Equipment limitation	Seedling mortality	Windthrow hazard	Potential productivity: Common trees	Site index	Volume*	Trees to plant
69F**:									
Yalmer	3R	Severe	Severe	Moderate	Moderate	Sugar maple	61	38	White spruce, red pine.
						Balsam fir	---	---	
						Yellow birch	---	---	
						Eastern hemlock	---	---	
						Quaking aspen	---	---	
						Paper birch	---	---	
						Red maple	61	38	
Munising	3R	Severe	Severe	Slight	Moderate	Sugar maple	60	38	Norway spruce, white spruce, red pine.
						Yellow birch	---	---	
						Eastern hemlock	---	---	
						Red maple	---	---	
						Bigtooth aspen	---	---	
						Balsam fir	---	---	
						Paper birch	---	---	
						White spruce	---	---	
						Quaking aspen	---	---	
70 Winterfield	6W	Slight	Moderate	Slight	Moderate	Quaking aspen	70	81	White spruce, eastern white pine.
						Red maple	65	40	
						Yellow birch	---	---	
						White spruce	---	---	
						White ash	---	---	
						Balsam fir	---	---	
						Black spruce	---	---	
						Eastern white pine	---	---	
71A Pelkie	3S	Slight	Slight	Moderate	Slight	Sugar maple	65	40	Red pine, white spruce, Norway spruce.
						American elm	---	---	
						Red maple	---	---	
						American basswood	---	---	
						Yellow birch	---	---	
						White spruce	---	---	
						American basswood	---	---	
72 Sturgeon	3W	Slight	Moderate	Slight	Moderate	Red maple	65	40	White spruce, Norway spruce.
						American basswood	---	---	
						Yellow birch	---	---	
						Quaking aspen	---	---	
						Balsam fir	---	---	
						Eastern hemlock	---	---	
						White spruce	---	---	
						Northern white-cedar	---	---	
						American elm	---	---	
						Sugar maple	---	---	
73 Arnheim	5W	Slight	Severe	Moderate	Severe	White spruce	38	68	
						Northern white-cedar	---	---	
						Red maple	---	---	
						Balsam fir	---	---	
						Black spruce	---	---	
						Paper birch	---	---	
						American elm	---	---	
						Quaking aspen	---	---	
						Tamarack	---	---	

See footnotes at end of table.

TABLE 7.--WOODLAND MANAGEMENT AND PRODUCTIVITY--Continued

Soil name and map symbol	Ordination symbol	Management concerns: Erosion hazard	Equipment limitation	Seedling mortality	Windthrow hazard	Potential productivity: Common trees	Site index	Volume*	Trees to plant
74B---------- Waiska Variant	2S	Slight	Slight	Severe	Slight	Red maple----------	55	35	Red pine, white spruce.
						Balsam fir----------	---	---	
						Paper birch---------	---	---	
						Quaking aspen-------	---	---	
						Eastern hemlock-----	---	---	
						White spruce--------	---	---	
						Yellow birch--------	---	---	
						Sugar maple---------	---	---	
						Bigtooth aspen------	---	---	
						Northern white-cedar	---	---	
75D---------- Fence	3R	Moderate	Moderate	Slight	Slight	Sugar maple---------	65	40	Red pine, eastern white pine, white spruce.
						Yellow birch--------	---	---	
						American basswood---	---	---	
						Quaking aspen-------	---	---	
						Bigtooth aspen------	---	---	
						Eastern hemlock-----	---	---	
						Balsam fir----------	---	---	
76A---------- Allendale	4W	Slight	Moderate	Slight	Moderate	Quaking aspen-------	60	64	White spruce, eastern white pine.
						White spruce--------	---	---	
						American elm--------	---	---	
						White spruce--------	---	---	
						Paper birch---------	---	---	
						Balsam fir----------	---	---	
						Red maple----------	---	---	
78B**, 78D**: Champion-------	3W	Slight	Moderate	Slight	Moderate	Sugar maple---------	60	38	White spruce, eastern white pine.
						American basswood---	---	---	
						Yellow birch--------	60	38	
						Eastern hemlock-----	---	---	
						Balsam fir----------	---	---	
						Quaking aspen-------	---	---	
						Red maple----------	---	---	
						Bigtooth aspen------	---	---	
						Black cherry--------	---	---	
						White spruce--------	---	---	
Michigamme-----	3W	Slight	Moderate	Slight	Moderate	Sugar maple---------	60	38	White spruce, eastern white pine.
						Yellow birch--------	60	38	
						Balsam fir----------	---	---	
						Eastern hemlock-----	---	---	
						Bigtooth aspen------	---	---	
						Red maple----------	---	---	
						White spruce--------	---	---	
						Black cherry--------	---	---	
78E**: Champion-------	3R	Moderate	Moderate	Slight	Moderate	Sugar maple---------	60	38	Eastern white pine, white spruce.
						Yellow birch--------	60	38	
						Quaking aspen-------	---	---	
						Red maple----------	---	---	
						Balsam fir----------	---	---	
						Bigtooth aspen------	---	---	
						Black cherry--------	---	---	
						White spruce--------	---	---	
						Eastern hemlock-----	---	---	
						American basswood---	---	---	

See footnotes at end of table.

TABLE 7.--WOODLAND MANAGEMENT AND PRODUCTIVITY--Continued

Soil name and map symbol	Ordination symbol	Management concerns: Erosion hazard	Equipment limitation	Seedling mortality	Windthrow hazard	Potential productivity: Common trees	Site index	Volume*	Trees to plant
78E**:									
Michigamme	3R	Moderate	Moderate	Slight	Slight	Sugar maple	60	38	White spruce, eastern white pine.
						Yellow birch	60	38	
						Balsam fir	---	---	
						Eastern hemlock	---	---	
						Bigtooth aspen	---	---	
						Red maple	---	---	
						White spruce	---	---	
						Black cherry	---	---	
79B Nunica	3A	Slight	Slight	Slight	Slight	Sugar maple	62	39	White spruce, red pine.
						Yellow birch	---	---	
						Eastern hemlock	---	---	
						American basswood	---	---	
						Paper birch	---	---	
						White spruce	---	---	
						Balsam fir	---	---	
79D Nunica	3R	Moderate	Slight	Slight	Slight	Sugar maple	62	39	White spruce, red pine.
						Yellow birch	---	---	
						Eastern hemlock	---	---	
						American basswood	---	---	
						Paper birch	---	---	
						White spruce	---	---	
						Balsam fir	---	---	
80A Bowers	7W	Slight	Moderate	Slight	Moderate	Balsam fir	54	105	White spruce, Norway spruce, eastern white pine.
						American basswood	---	---	
						White ash	---	---	
						Yellow birch	---	---	
						Red maple	---	---	
						Quaking aspen	---	---	
						White spruce	---	---	
						Eastern hemlock	---	---	
81A Burt Variant	2W	Slight	Severe	Moderate	Severe	Red maple	55	35	Eastern white pine, white spruce.
						Yellow birch	---	---	
						Quaking aspen	---	---	
						Paper birch	---	---	
						White spruce	---	---	
						Sugar maple	---	---	
						Balsam fir	---	---	
						Northern white-cedar	---	---	
82 Roscommon Variant	2W	Slight	Severe	Moderate	Moderate	Red maple	45	30	
						Northern white-cedar	---	---	
						Balsam fir	---	---	
						Yellow birch	---	---	
						Eastern hemlock	---	---	
						Black spruce	---	---	
						White spruce	---	---	
83E**:									
Nunica	3R	Severe	Severe	Slight	Slight	Sugar maple	62	39	White spruce, red pine.
						Yellow birch	---	---	
						Eastern hemlock	---	---	
						American basswood	---	---	
						Paper birch	---	---	
						White spruce	---	---	
						Balsam fir	---	---	

See footnotes at end of table.

TABLE 7.--WOODLAND MANAGEMENT AND PRODUCTIVITY--Continued

Soil name and map symbol	Ordination symbol	Management concerns: Erosion hazard	Equipment limitation	Seedling mortality	Windthrow hazard	Potential productivity: Common trees	Site index	Volume*	Trees to plant
83E**:									
Ontonagon------	2R	Severe	Severe	Severe	Severe	Red maple----------	55	35	White spruce, Norway spruce.
						Yellow birch--------	---	---	
						Northern white-cedar	---	---	
						Eastern hemlock-----	---	---	
						White spruce--------	---	---	
						Balsam fir----------	---	---	
84A---------- Channing	2W	Slight	Moderate	Slight	Moderate	Red maple----------	55	35	Eastern white pine, white spruce.
						Quaking aspen-------	---	---	
						Balsam fir----------	---	---	
						Paper birch---------	---	---	
						Black spruce--------	---	---	
						White spruce--------	---	---	
						Northern white-cedar	---	---	
						Yellow birch--------	---	---	
86A**:									
Net----------	2X	Slight	Moderate	Slight	Moderate	Red maple----------	57	36	White spruce, eastern white pine.
						Balsam fir----------	58	113	
						Bigtooth aspen------	---	---	
						Quaking aspen-------	---	---	
						White spruce--------	---	---	
						Paper birch---------	53	53	
						Yellow birch--------	---	---	
						Eastern hemlock-----	---	---	
Witbeck--------	3X	Slight	Severe	Severe	Severe	Black spruce--------	33	44	
						Quaking aspen-------	50	44	
						White spruce--------	---	---	
						Balsam fir----------	48	90	
						Black ash----------	---	---	
						Yellow birch--------	---	---	
						Red maple----------	---	---	
						Northern white-cedar	---	---	
87A**:									
Skanee---------	3W	Slight	Severe	Moderate	Severe	Red maple----------	60	38	White spruce, eastern white pine.
						Sugar maple---------	60	38	
						Yellow birch--------	---	---	
						Eastern hemlock-----	---	---	
						Balsam fir----------	---	---	
						Quaking aspen-------	---	---	
						Paper birch---------	---	---	
						Northern white-cedar	---	---	
Gay----------	7W	Slight	Severe	Moderate	Severe	Balsam fir----------	53	102	
						Red maple----------	---	---	
						Northern white-cedar	---	---	
						White spruce--------	---	---	
						Paper birch---------	---	---	
						Eastern hemlock-----	---	---	
						Yellow birch--------	---	---	
						Quaking aspen-------	---	---	

See footnotes at end of table.

TABLE 7.--WOODLAND MANAGEMENT AND PRODUCTIVITY--Continued

Soil name and map symbol	Ordination symbol	Management concerns: Erosion hazard	Equipment limitation	Seedling mortality	Windthrow hazard	Potential productivity: Common trees	Site index	Volume*	Trees to plant
88B**:									
Munising	3R	Slight	Moderate	Slight	Moderate	Sugar maple	60	38	Norway spruce, white spruce, red pine.
						Yellow birch	---	---	
						Eastern hemlock	---	---	
						Red maple	---	---	
						Bigtooth aspen	---	---	
						Balsam fir	---	---	
						Paper birch	---	---	
						White spruce	---	---	
						Quaking aspen	---	---	
Yalmer	3R	Slight	Moderate	Moderate	Moderate	Sugar maple	61	38	Red pine, Norway spruce.
						American beech	---	---	
						Yellow birch	---	---	
						Balsam fir	---	---	
						Eastern hemlock	---	---	
						Red maple	61	38	
						Paper birch	---	---	
						Quaking aspen	---	---	
88D**:									
Munising	3R	Moderate	Moderate	Slight	Moderate	Sugar maple	60	38	Norway spruce, white spruce, red pine.
						Yellow birch	---	---	
						Eastern hemlock	---	---	
						Red maple	---	---	
						Bigtooth aspen	---	---	
						Balsam fir	---	---	
						Paper birch	---	---	
						White spruce	---	---	
						Quaking aspen	---	---	
Yalmer	3R	Moderate	Moderate	Moderate	Moderate	Sugar maple	61	38	White spruce, red pine.
						Balsam fir	---	---	
						Yellow birch	---	---	
						Eastern hemlock	---	---	
						Quaking aspen	---	---	
						Paper birch	---	---	
						Red maple	61	38	
88E**:									
Yalmer	3R	Severe	Severe	Moderate	Moderate	Sugar maple	61	38	White spruce, red pine.
						Balsam fir	---	---	
						Yellow birch	---	---	
						Eastern hemlock	---	---	
						Quaking aspen	---	---	
						Paper birch	---	---	
						Red maple	61	38	
Munising	3R	Severe	Severe	Slight	Moderate	Sugar maple	60	38	Norway spruce, white spruce, red pine.
						Yellow birch	---	---	
						Eastern hemlock	---	---	
						Red maple	---	---	
						Bigtooth aspen	---	---	
						Balsam fir	---	---	
						Paper birch	---	---	
						White spruce	---	---	
						Quaking aspen	---	---	

See footnotes at end of table.

TABLE 7.--WOODLAND MANAGEMENT AND PRODUCTIVITY--Continued

Soil name and map symbol	Ordination symbol	Management concerns: Erosion hazard	Equipment limitation	Seedling mortality	Windthrow hazard	Potential productivity: Common trees	Site index	Volume*	Trees to plant
91B**, 91D**:									
Keweenaw	3S	Slight	Slight	Moderate	Slight	Sugar maple	61	38	Red pine, eastern white pine.
						Eastern hemlock	---	---	
						Yellow birch	---	---	
						Northern red oak	---	---	
						Paper birch	---	---	
						Red maple	---	---	
						Black cherry	---	---	
						Eastern white pine	---	---	
						Balsam fir	---	---	
Kalkaska	3S	Slight	Moderate	Moderate	Slight	Sugar maple	64	40	Red pine, jack pine.
						Quaking aspen	---	---	
						Red pine	---	---	
						Eastern hemlock	---	---	
						Yellow birch	---	---	
						Paper birch	---	---	
						Northern red oak	---	---	
						Red maple	63	39	
						Bigtooth aspen	---	---	
91E**:									
Keweenaw	3R	Moderate	Moderate	Moderate	Slight	Sugar maple	61	39	Red pine, eastern white pine.
						Eastern hemlock	---	---	
						Yellow birch	---	---	
						Northern red oak	---	---	
						Paper birch	---	---	
						Red maple	---	---	
						Black cherry	---	---	
						Eastern white pine	---	---	
						Balsam fir	---	---	
Kalkaska	3R	Moderate	Moderate	Moderate	Slight	Sugar maple	64	40	Red pine, jack pine.
						Quaking aspen	---	---	
						Red pine	---	---	
						Eastern white pine	---	---	
						American beech	---	---	
						Paper birch	---	---	
						Northern red oak	---	---	
						Red maple	63	38	
						Bigtooth aspen	---	---	
92B**:									
Keweenaw	3R	Slight	Moderate	Moderate	Slight	Sugar maple	61	38	Red pine, eastern white pine.
						Eastern hemlock	---	---	
						Yellow birch	---	---	
						Northern red oak	---	---	
						Paper birch	---	---	
						Red maple	---	---	
						Black cherry	---	---	
						Eastern white pine	---	---	
						Balsam fir	---	---	
Kalkaska	3R	Slight	Moderate	Moderate	Slight	Sugar maple	64	40	Red pine, jack pine.
						Quaking aspen	---	---	
						Red pine	---	---	
						Eastern hemlock	---	---	
						Yellow birch	---	---	
						Paper birch	---	---	
						Northern red oak	---	---	
						Red maple	63	39	
						Bigtooth aspen	---	---	

See footnotes at end of table.

TABLE 7.--WOODLAND MANAGEMENT AND PRODUCTIVITY--Continued

Soil name and map symbol	Ordination symbol	Management concerns: Erosion hazard	Equipment limitation	Seedling mortality	Windthrow hazard	Potential productivity: Common trees	Site index	Volume*	Trees to plant
92D**:									
Keweenaw	3R	Moderate	Moderate	Moderate	Slight	Sugar maple	61	38	Red pine, eastern white pine.
						Eastern hemlock	---	---	
						Yellow birch	---	---	
						Northern red oak	---	---	
						Paper birch	---	---	
						Red maple	---	---	
						Black cherry	---	---	
						Eastern white pine	---	---	
						Balsam fir	---	---	
Kalkaska	3R	Moderate	Moderate	Moderate	Slight	Sugar maple	64	40	Red pine, jack pine.
						Quaking aspen	---	---	
						Red pine	---	---	
						Eastern hemlock	---	---	
						Yellow birch	---	---	
						Paper birch	---	---	
						Northern red oak	---	---	
						Red maple	63	39	
						Bigtooth aspen	---	---	
92E**:									
Keweenaw	3R	Severe	Severe	Moderate	Slight	Sugar maple	61	38	Red pine, eastern white pine.
						Eastern hemlock	---	---	
						Yellow birch	---	---	
						Northern red oak	---	---	
						Paper birch	---	---	
						Red maple	---	---	
						Black cherry	---	---	
						Eastern white pine	---	---	
						Balsam fir	---	---	
Kalkaska	3R	Severe	Severe	Moderate	Slight	Sugar maple	64	40	Red pine, jack pine.
						Quaking aspen	---	---	
						Red pine	---	---	
						Eastern white pine	---	---	
						American beech	---	---	
						Paper birch	---	---	
						Northern red oak	---	---	
						Red maple	63	39	
						Bigtooth aspen	---	---	
93B**:									
Deerton	3R	Slight	Moderate	Moderate	Slight	Sugar maple	60	38	Red pine, jack pine.
						Quaking aspen	---	---	
						American basswood	---	---	
						Balsam fir	---	---	
						Paper birch	---	---	
						Red maple	---	---	
						Yellow birch	---	---	
						Bigtooth aspen	---	---	
						Eastern hemlock	---	---	
Abbaye	3R	Slight	Moderate	Moderate	Slight	Sugar maple	62	39	White spruce, red pine.
						Yellow birch	---	---	
						Eastern hemlock	---	---	
						Red maple	---	---	
						Quaking aspen	---	---	
						Balsam fir	---	---	
						Paper birch	---	---	

See footnotes at end of table.

TABLE 7.--WOODLAND MANAGEMENT AND PRODUCTIVITY--Continued

Soil name and map symbol	Ordination symbol	Management concerns: Erosion hazard	Equipment limitation	Seedling mortality	Windthrow hazard	Potential productivity: Common trees	Site index	Volume*	Trees to plant
93D**:									
Deerton	3R	Moderate	Moderate	Moderate	Slight	Sugar maple	60	38	Red pine, jack pine.
						Quaking aspen	---	---	
						American basswood	---	---	
						Balsam fir	---	---	
						Paper birch	---	---	
						Red maple	---	---	
						Yellow birch	---	---	
						Bigtooth aspen	---	---	
						Eastern hemlock	---	---	
Abbaye	3R	Moderate	Moderate	Moderate	Slight	Sugar maple	62	39	White spruce, red pine.
						Yellow birch	---	---	
						Eastern hemlock	---	---	
						Red maple	65	40	
						Quaking aspen	---	---	
						Balsam fir	---	---	
						Paper birch	---	---	
94B Deerton	3S	Slight	Slight	Moderate	Slight	Sugar maple	60	38	Red pine, jack pine.
						Quaking aspen	---	---	
						American basswood	---	---	
						Balsam fir	---	---	
						Paper birch	---	---	
						Red maple	---	---	
						Yellow birch	---	---	
						Bigtooth aspen	---	---	
						Eastern hemlock	---	---	
95B, 95D Amasa	3A	Slight	Slight	Slight	Slight	Sugar maple	62	39	White spruce, red pine.
						Quaking aspen	70	81	
						Yellow birch	---	---	
						Eastern hemlock	---	---	
						Balsam fir	---	---	
						Red maple	---	---	
96A Richter Variant	2W	Slight	Moderate	Slight	Moderate	Red maple	55	35	Eastern white pine, white spruce.
						Balsam fir	---	---	
						Quaking aspen	---	---	
						Yellow birch	---	---	
						Paper birch	---	---	
						Eastern hemlock	---	---	
						Bigtooth aspen	---	---	
98A**:									
Burt Variant	2W	Slight	Severe	Moderate	Severe	Red maple	55	35	Eastern white pine, white spruce.
						Yellow birch	---	---	
						Quaking aspen	---	---	
						Paper birch	---	---	
						White spruce	---	---	
						Sugar maple	---	---	
						Balsam fir	---	---	
						Northern white-cedar	---	---	
Burt	2W	Slight	Severe	Severe	Severe	Quaking aspen	45	32	
						Red maple	---	---	
						Northern white-cedar	---	---	
						Black spruce	---	---	
						Eastern hemlock	---	---	
						Balsam fir	---	---	

See footnotes at end of table.

TABLE 7.--WOODLAND MANAGEMENT AND PRODUCTIVITY--Continued

Soil name and map symbol	Ordination symbol	Management concerns: Erosion hazard	Equipment limitation	Seedling mortality	Windthrow hazard	Potential productivity: Common trees	Site index	Volume*	Trees to plant
99B**, 99D**:									
Rubicon	4S	Slight	Moderate	Moderate	Slight	Quaking aspen	60	64	Red pine, jack pine.
						Jack pine	48	70	
						Red pine	50	75	
						Bigtooth aspen	---	---	
						Balsam fir	---	---	
						Northern red oak	---	---	
						Red maple	---	---	
						Paper birch	---	---	
						Eastern white pine	45	75	
Rousseau	5S	Slight	Moderate	Moderate	Slight	Quaking aspen	65	73	Red pine, jack pine.
						Red maple	---	---	
						Balsam fir	---	---	
						Northern red oak	---	---	
						Eastern hemlock	---	---	
						Red pine	---	---	
						Paper birch	65	73	
						Yellow birch	---	---	
						Bigtooth aspen	---	---	
Ocqueoc	3S	Slight	Moderate	Moderate	Slight	Sugar maple	63	39	Red pine, white spruce.
						Yellow birch	---	---	
						Quaking aspen	---	---	
						Eastern white pine	---	---	
						Red pine	---	---	
						Jack pine	---	---	
						Paper birch	---	---	
						Red maple	---	---	
100B, 100D Amasa	3A	Slight	Slight	Slight	Slight	Sugar maple	62	39	White spruce, red pine.
						Quaking aspen	70	81	
						Yellow birch	---	---	
						Eastern hemlock	---	---	
						Balsam fir	---	---	
						Red maple	---	---	
						Bigtooth aspen	---	---	
						Black cherry	---	---	
100E Amasa	3R	Moderate	Moderate	Slight	Slight	Sugar maple	62	39	White spruce, red pine.
						Quaking aspen	70	81	
						Yellow birch	---	---	
						Eastern hemlock	---	---	
						Balsam fir	---	---	
						Red maple	---	---	
						Bigtooth aspen	---	---	
						Black cherry	---	---	
101E**:									
Peshekee	2R	Moderate	Moderate	Moderate	Severe	Sugar maple	53	34	Eastern white pine, white spruce.
						Eastern white pine	53	99	
						Red pine	---	---	
						Yellow birch	---	---	
						Balsam fir	---	---	
						Paper birch	56	59	
						Red maple	---	---	
						Quaking aspen	---	---	
						Eastern hemlock	---	---	
						White spruce	---	---	
Rock outcrop.									

See footnotes at end of table.

TABLE 7.--WOODLAND MANAGEMENT AND PRODUCTIVITY--Continued

Soil name and map symbol	Ordination symbol	Management concerns: Erosion hazard	Equipment limitation	Seedling mortality	Windthrow hazard	Potential productivity: Common trees	Site index	Volume*	Trees to plant
101F**:									
Peshekee	2R	Severe	Severe	Moderate	Severe	Sugar maple	53	34	Eastern white pine, white spruce.
						Eastern white pine	53	99	
						Red pine	---	---	
						Yellow birch	---	---	
						Balsam fir	---	---	
						Paper birch	56	59	
						Red maple	---	---	
						Quaking aspen	---	---	
						Eastern hemlock	---	---	
						White spruce	---	---	
Rock outcrop.									
102A Channing	2X	Slight	Moderate	Slight	Moderate	Red maple	55	35	Eastern white pine, white spruce.
						Balsam fir	54	105	
						Yellow birch	---	---	
						White spruce	---	---	
						Northern white-cedar	---	---	
						Quaking aspen	---	---	
						Paper birch	---	---	
106B Yalmer	3D	Slight	Moderate	Moderate	Moderate	Sugar maple	61	38	Red pine, Norway spruce.
						Yellow birch	---	---	
						Balsam fir	---	---	
						Eastern hemlock	---	---	
						Red maple	61	38	
						Paper birch	---	---	
						Quaking aspen	---	---	
107F**:									
Rousseau	5R	Severe	Severe	Moderate	Slight	Quaking aspen	65	73	Red pine, jack pine.
						Sugar maple	60	38	
						Red maple	---	---	
						Balsam fir	---	---	
						Northern red oak	---	---	
						Eastern hemlock	---	---	
						Red pine	---	---	
						Paper birch	65	73	
						Yellow birch	---	---	
						Bigtooth aspen	---	---	
Ocqueoc	3R	Severe	Severe	Moderate	Slight	Sugar maple	63	39	Red pine, white spruce.
						Yellow birch	---	---	
						Quaking aspen	---	---	
						Eastern white pine	---	---	
						Red pine	---	---	
						Jack pine	---	---	
						Paper birch	---	---	
						Red maple	---	---	
108B**:									
Champion	3W	Slight	Moderate	Slight	Moderate	Sugar maple	60	38	White spruce, eastern white pine.
						American basswood	---	---	
						Yellow birch	60	38	
						Eastern hemlock	---	---	
						Balsam fir	---	---	
						Quaking aspen	---	---	
						Red maple	---	---	
						Bigtooth aspen	---	---	
						Black cherry	---	---	
						White spruce	---	---	

See footnotes at end of table.

TABLE 7.--WOODLAND MANAGEMENT AND PRODUCTIVITY--Continued

Soil name and map symbol	Ordination symbol	Management concerns: Erosion hazard	Equipment limitation	Seedling mortality	Windthrow hazard	Potential productivity: Common trees	Site index	Volume*	Trees to plant
108B**:									
Net	2X	Slight	Moderate	Slight	Moderate	Red maple	57	36	White spruce, eastern white pine.
						Balsam fir	58	113	
						Bigtooth aspen	---	---	
						Quaking aspen	---	---	
						White spruce	---	---	
						Paper birch	53	53	
						Yellow birch	---	---	
						Eastern hemlock	---	---	
Michigamme	3W	Slight	Moderate	Slight	Moderate	Sugar maple	60	38	White spruce, eastern white pine.
						Yellow birch	60	38	
						Balsam fir	---	---	
						Eastern hemlock	---	---	
						Bigtooth aspen	---	---	
						Red maple	---	---	
						White spruce	---	---	
						Black cherry	---	---	
109F**:									
Rousseau	5R	Severe	Severe	Moderate	Slight	Quaking aspen	65	73	Red pine, jack pine.
						Sugar maple	60	38	
						Red maple	---	---	
						Balsam fir	---	---	
						Northern red oak	---	---	
						Eastern hemlock	---	---	
						Red pine	---	---	
						Paper birch	65	73	
						Yellow birch	---	---	
						Bigtooth aspen	---	---	
Fence	3R	Severe	Severe	Slight	Slight	Sugar maple	65	40	Red pine, eastern white pine, white spruce.
						Yellow birch	---	---	
						American basswood	---	---	
						Quaking aspen	---	---	
						Bigtooth aspen	---	---	
						Eastern hemlock	---	---	
						Balsam fir	---	---	
Ocqueoc	3R	Severe	Severe	Moderate	Slight	Sugar maple	63	39	Red pine, white spruce.
						Yellow birch	---	---	
						Quaking aspen	---	---	
						Eastern white pine	---	---	
						Red pine	---	---	
						Jack pine	---	---	
						Paper birch	---	---	
						Red maple	---	---	
110E**:									
Ishpeming	5R	Moderate	Severe	Moderate	Slight	Quaking aspen	63	70	Red pine, jack pine.
						Balsam fir	---	---	
						Red maple	---	---	
						Eastern hemlock	---	---	
						Paper birch	60	65	
						Bigtooth aspen	68	78	
						Sugar maple	---	---	
						Yellow birch	---	---	
						American basswood	---	---	
Rock outcrop.									

See footnotes at end of table.

TABLE 7.--WOODLAND MANAGEMENT AND PRODUCTIVITY--Continued

Soil name and map symbol	Ordination symbol	Management concerns: Erosion hazard	Equipment limitation	Seedling mortality	Windthrow hazard	Potential productivity: Common trees	Site index	Volume*	Trees to plant
111B**:									
Yalmer	3D	Slight	Moderate	Moderate	Moderate	Sugar maple	61	38	Red pine, Norway spruce.
						Yellow birch	---	---	
						Balsam fir	---	---	
						Eastern hemlock	---	---	
						Red maple	61	38	
						Paper birch	---	---	
						Quaking aspen	---	---	
Assinins	3W	Slight	Moderate	Slight	Moderate	Red maple	65	40	White spruce, Norway spruce.
						American basswood	---	---	
						Eastern hemlock	---	---	
						Bigtooth aspen	---	---	
						Balsam fir	---	---	
						Yellow birch	---	---	
						Quaking aspen	---	---	
						White spruce	---	---	
						Sugar maple	---	---	
112A Assinins	3W	Slight	Moderate	Slight	Moderate	Red maple	65	40	White spruce, Norway spruce.
						American basswood	---	---	
						Eastern hemlock	---	---	
						Bigtooth aspen	---	---	
						Balsam fir	---	---	
						Yellow birch	---	---	
						Quaking aspen	---	---	
						White spruce	---	---	
						Sugar maple	---	---	
113B, 113D Petticoat	3A	Slight	Slight	Slight	Slight	Sugar maple	66	41	White spruce, red pine.
						Yellow birch	---	---	
						American basswood	---	---	
						Balsam fir	---	---	
						Quaking aspen	---	---	
						Black cherry	---	---	
						Paper birch	---	---	
						Red maple	---	---	
						American elm	---	---	
114B Peshekee Variant	3X	Slight	Slight	Moderate	Severe	Sugar maple	61	38	White spruce, Norway spruce.
						Yellow birch	---	---	
						Eastern hemlock	---	---	
						Quaking aspen	---	---	
						Balsam fir	---	---	
						American basswood	---	---	
						Red maple	---	---	
114E Peshekee Variant	3R	Moderate	Moderate	Moderate	Severe	Sugar maple	61	38	White spruce, Norway spruce.
						Yellow birch	---	---	
						Eastern hemlock	---	---	
						Quaking aspen	---	---	
						Balsam fir	---	---	
						American basswood	---	---	
						Red maple	---	---	

See footnotes at end of table.

TABLE 7.--WOODLAND MANAGEMENT AND PRODUCTIVITY--Continued

Soil name and map symbol	Ordination symbol	Management concerns: Erosion hazard	Equipment limitation	Seedling mortality	Windthrow hazard	Potential productivity: Common trees	Site index	Volume*	Trees to plant
115D**:									
Munising	3W	Slight	Moderate	Slight	Moderate	Sugar maple	60	38	Norway spruce, white spruce, red pine.
						Yellow birch	---	---	
						Eastern hemlock	---	---	
						Red maple	---	---	
						Bigtooth aspen	---	---	
						Balsam fir	---	---	
						Paper birch	---	---	
						White spruce	---	---	
Michigamme	3W	Slight	Moderate	Slight	Moderate	Sugar maple	60	38	White spruce, eastern white pine.
						Yellow birch	60	38	
						Balsam fir	---	---	
						Eastern hemlock	---	---	
						Bigtooth aspen	---	---	
						Red maple	---	---	
						White spruce	---	---	
						Black cherry	---	---	
115E**:									
Munising	3R	Moderate	Moderate	Slight	Moderate	Sugar maple	60	38	Norway spruce, white spruce, red pine.
						Yellow birch	---	---	
						Eastern hemlock	---	---	
						Red maple	---	---	
						Bigtooth aspen	---	---	
						Balsam fir	---	---	
						Paper birch	---	---	
						White spruce	---	---	
						Quaking aspen	---	---	
Michigamme	3R	Moderate	Moderate	Slight	Slight	Sugar maple	60	38	White spruce, eastern white pine.
						Yellow birch	60	38	
						Balsam fir	---	---	
						Eastern hemlock	---	---	
						Bigtooth aspen	---	---	
						Red maple	---	---	
						White spruce	---	---	
						Black cherry	---	---	

* Volume is the yield in cubic feet per acre per year calculated at the age of culmination of mean annual increment for fully stocked natural stands.

** See description of the map unit for composition and behavior characteristics of the map unit.

TABLE 8.--EQUIPMENT LIMITATIONS ON WOODLAND

(Only the soils suitable for production of commercial trees are listed. Some terms that describe restrictive soil features are defined in the Glossary. See text for definitions of "slight," "moderate," and "severe." Absence of an entry indicates that the soil was not rated)

Soil name and map symbol	Ratings for most limiting season(s)			Preferred operating season(s)	Ratings for preferred operating season(s)		
	Logging areas and skid roads	Landings	Logging roads		Logging areas and skid roads	Landings	Logging roads
10B---------- Watton	Slight---------	Moderate: slope.	Slight--------	Year round-----	Slight--------	Moderate: slope.	Slight.
10D---------- Watton	Moderate: slope.	Severe: slope.	Moderate: slope.	Year round-----	Moderate: slope.	Severe: slope.	Moderate: slope.
11A---------- Alstad	Severe: wetness.	Severe: wetness.	Severe: wetness.	Summer, winter	Slight--------	Slight--------	Slight.
12---------- Alstad Variant	Severe: wetness.	Severe: wetness.	Severe: wetness.	Summer, winter	Slight--------	Slight--------	Slight.
13B---------- Grayling	Moderate: sandy.	Moderate: sandy.	Moderate: sandy.	Spring, fall, winter.	Slight--------	Slight--------	Slight.
13D---------- Grayling	Moderate: sandy.	Severe: slope.	Moderate: sandy.	Spring, fall, winter.	Slight--------	Severe: slope.	Slight.
14B---------- Rubicon	Moderate: sandy.	Moderate: slope, sandy.	Moderate: sandy.	Spring, fall, winter.	Slight--------	Moderate: slope.	Slight.
14D---------- Rubicon	Moderate: sandy.	Severe: slope.	Moderate: sandy.	Spring, fall, winter.	Slight--------	Severe: slope.	Slight.
14E---------- Rubicon	Moderate: slope, sandy.	Severe: slope.	Moderate: slope, sandy.	Spring, fall, winter.	Moderate: slope.	Severe: slope.	Moderate: slope.
14F---------- Rubicon	Severe: slope.	Severe: slope.	Severe: slope.	Spring, fall, winter.	Severe: slope.	Severe: slope.	Severe: slope.
15B---------- Champion	Severe: wetness.	Severe: wetness.	Severe: wetness.	Summer, winter	Slight--------	Moderate: slope.	Slight.
15D---------- Champion	Severe: wetness.	Severe: slope, wetness.	Severe: wetness.	Summer, winter	Slight--------	Severe: slope.	Slight.
15E---------- Champion	Moderate: slope.	Severe: slope.	Moderate: slope.	Year round-----	Moderate: slope.	Severe: slope.	Moderate: slope.
16A---------- Croswell	Slight---------	Slight--------	Slight--------	Year round-----	Slight--------	Slight--------	Slight.
17A---------- Au Gres	Moderate: wetness.	Moderate: wetness.	Moderate: wetness.	Summer, fall, winter.	Slight--------	Slight--------	Slight.

See footnote at end of table.

TABLE 8.--EQUIPMENT LIMITATIONS ON WOODLAND--Continued

Soil name and map symbol	Ratings for most limiting season(s)			Preferred operating season(s)	Ratings for preferred operating season(s)		
	Logging areas and skid roads	Landings	Logging roads		Logging areas and skid roads	Landings	Logging roads
18 Kinross	Severe: wetness.	Severe: wetness.	Severe: wetness.	Winter	Slight	Slight	Slight.
19*:							
Dawson	Severe: wetness, low strength.	Severe: wetness, low strength.	Severe: wetness, low strength.	Winter	Moderate: low strength.	Severe: low strength.	Moderate: low strength.
Greenwood	Severe: wetness, low strength.	Severe: wetness, low strength.	Severe: wetness, low strength.	Winter	Moderate: low strength.	Severe: low strength.	Moderate: low strength.
20*:							
Carbondale	Severe: wetness, low strength.	Severe: wetness, low strength.	Severe: wetness, low strength.	Winter	Moderate: low strength.	Severe: low strength.	Moderate: low strength.
Tacoosh	Severe: wetness, low strength.	Severe: wetness, low strength.	Severe: wetness, low strength.	Winter	Moderate: low strength.	Severe: low strength.	Moderate: low strength.
21B Allouez	Slight	Slight	Slight	Year round	Slight	Slight	Slight.
23B*:							
Munising	Severe: wetness.	Severe: wetness.	Severe: wetness.	Summer, winter	Slight	Moderate: slope.	Slight.
Yalmer	Moderate: sandy.	Moderate: slope, sandy.	Moderate: sandy.	Summer, fall, winter.	Slight	Moderate: slope.	Slight.
23D*:							
Munising	Severe: wetness.	Severe: slope, wetness.	Severe: wetness.	Summer, winter	Slight	Severe: slope.	Slight.
Yalmer	Moderate: sandy.	Severe: slope.	Moderate: sandy.	Summer, fall, winter.	Slight	Severe: slope.	Slight.
24B Munising	Severe: wetness.	Severe: slope, wetness.	Severe: wetness.	Summer, winter	Slight	Severe: slope.	Slight.
24D Munising	Moderate: slope.	Severe: slope.	Moderate: slope.	Year round	Moderate: slope.	Severe: slope.	Moderate: slope.
25A Net	Severe: wetness.	Severe: wetness.	Severe: wetness.	Summer, winter	Moderate: stones.	Moderate: stones.	Moderate: stones.

See footnote at end of table.

TABLE 8.--EQUIPMENT LIMITATIONS ON WOODLAND--Continued

Soil name and map symbol	Ratings for most limiting season(s)			Preferred operating season(s)	Ratings for preferred operating season(s)		
	Logging areas and skid roads	Landings	Logging roads		Logging areas and skid roads	Landings	Logging roads
26---------- Witbeck	Severe: wetness, stones.	Severe: wetness, stones.	Severe: wetness, stones.	Summer, winter	Severe: stones.	Severe: stones.	Severe: stones.
27B---------- Munising	Severe: wetness.	Severe: wetness.	Severe: wetness.	Summer, winter	Slight--------	Moderate: slope.	Slight.
29D*:							
Grayling--------	Moderate: sandy.	Severe: slope.	Moderate: sandy.	Spring, fall, winter.	Slight--------	Severe: slope.	Slight.
Kinross---------	Severe: wetness.	Severe: wetness.	Severe: wetness.	Winter---------	Slight--------	Slight--------	Slight.
30B---------- Kalkaska	Moderate: sandy.	Moderate: slope, sandy.	Moderate: sandy.	Spring, fall, winter.	Slight--------	Moderate: slope.	Slight.
30D---------- Kalkaska	Moderate: sandy.	Severe: slope.	Moderate: sandy.	Spring, fall, winter.	Slight--------	Severe: slope.	Slight.
30E---------- Kalkaska	Moderate: slope, sandy.	Severe: slope.	Moderate: slope, sandy.	Spring, fall, winter.	Moderate: slope.	Severe: slope.	Moderate: slope.
30F---------- Kalkaska	Severe: slope.	Severe: slope.	Severe: slope.	Spring, fall, winter.	Severe: slope.	Severe: slope.	Severe: slope.
31B---------- Kallio	Severe: wetness.	Severe: wetness.	Severe: wetness.	Summer, winter	Slight--------	Moderate: slope.	Slight.
31D---------- Kallio	Severe: wetness.	Severe: slope, wetness.	Severe: wetness.	Summer, winter	Slight--------	Severe: slope.	Slight.
32A*:							
Kinross---------	Severe: wetness.	Severe: wetness.	Severe: wetness.	Winter---------	Slight--------	Slight--------	Slight.
Croswell--------	Slight---------	Slight--------	Slight--------	Year round-----	Slight--------	Slight--------	Slight.
33*:							
Histosols.							
Aquents.							
34B---------- Ontonagon	Moderate: clayey subsoil.	Moderate: clayey subsoil.	Moderate: clayey subsoil.	Year round-----	Moderate: clayey subsoil.	Moderate: clayey subsoil.	Moderate: clayey subsoil.

See footnote at end of table.

TABLE 8.--EQUIPMENT LIMITATIONS ON WOODLAND--Continued

Soil name and map symbol	Ratings for most limiting season(s)			Preferred operating season(s)	Ratings for preferred operating season(s)		
	Logging areas and skid roads	Landings	Logging roads		Logging areas and skid roads	Landings	Logging roads
35A---------- Rudyard	Severe: wetness.	Severe: wetness.	Severe: wetness.	Summer, winter	Moderate: clayey subsoil.	Moderate: clayey subsoil.	Moderate: clayey subsoil.
36A---------- Skanee	Severe: wetness.	Severe: wetness.	Severe: wetness.	Summer, winter	Slight--------	Slight--------	Slight.
37---------- Pickford	Severe: wetness.	Severe: wetness.	Severe: wetness.	Summer, winter	Moderate: clayey subsoil.	Moderate: clayey subsoil.	Moderate: clayey subsoil.
38B---------- Froberg	Moderate: clayey subsoil.	Moderate: clayey subsoil.	Moderate: clayey subsoil.	Year round-----	Moderate: clayey subsoil.	Moderate: clayey subsoil.	Moderate: clayey subsoil.
39B*:							
Munising--------	Severe: wetness.	Severe: wetness.	Severe: wetness.	Summer, winter	Slight--------	Slight--------	Slight.
Skanee----------	Severe: wetness.	Severe: wetness.	Severe: wetness.	Summer, winter	Slight--------	Slight--------	Slight.
43A---------- Moquah	Slight---------	Slight--------	Slight--------	Year round-----	Slight--------	Slight--------	Slight.
44B*:							
Michigamme------	Severe: wetness.	Severe: wetness.	Severe: wetness.	Summer, winter	Moderate: rock outcrop.	Moderate: slope, rock outcrop.	Moderate: rock outcrop, bedrock.
Rock outcrop.							
44D*:							
Michigamme------	Severe: wetness.	Severe: slope, wetness.	Severe: wetness.	Summer, winter	Moderate: rock outcrop.	Severe: slope.	Moderate: rock outcrop, bedrock.
Rock outcrop.							
44E*:							
Michigamme------	Moderate: slope.	Severe: slope.	Moderate: slope, rock outcrop, bedrock.	Year round-----	Moderate: slope, rock outcrop.	Severe: slope.	Moderate: slope, rock outcrop, bedrock.
Rock outcrop.							

See footnote at end of table.

TABLE 8.--EQUIPMENT LIMITATIONS ON WOODLAND--Continued

Soil name and map symbol	Ratings for most limiting season(s)			Preferred operating season(s)	Ratings for preferred operating season(s)		
	Logging areas and skid roads	Landings	Logging roads		Logging areas and skid roads	Landings	Logging roads
44F*:							
Michigamme	Severe: slope.	Severe: slope.	Severe: slope.	Year round	Severe: slope.	Severe: slope.	Severe: slope.
Rock outcrop.							
47B Yalmer	Moderate: sandy.	Moderate: slope, sandy.	Moderate: sandy.	Spring, fall, winter.	Slight	Moderate: slope.	Slight.
48B Rousseau	Moderate: sandy.	Moderate: slope, sandy.	Moderate: sandy.	Spring, fall, winter.	Slight	Moderate: slope.	Slight.
49 Gay	Severe: wetness.	Severe: wetness.	Severe: wetness.	Summer, winter	Slight	Slight	Slight.
50B Abbaye	Slight	Moderate: slope.	Moderate: bedrock.	Year round	Slight	Moderate: slope.	Moderate: bedrock.
50D Abbaye	Slight	Severe: slope.	Moderate: bedrock.	Year round	Slight	Severe: slope.	Moderate: bedrock.
51A Zeba	Severe: wetness.	Severe: wetness.	Severe: wetness.	Summer, winter	Slight	Slight	Moderate: bedrock.
52 Gay Variant	Severe: wetness.	Severe: wetness.	Severe: wetness.	Summer, winter	Slight	Slight	Moderate: bedrock.
53B Onota Variant	Slight	Slight	Severe: bedrock.	Year round	Slight	Slight	Severe: bedrock.
54B Waiska	Slight	Moderate: slope.	Slight	Year round	Slight	Moderate: slope.	Slight.
54D Waiska	Slight	Severe: slope.	Slight	Year round	Slight	Severe: slope.	Slight.
56A Deerton Variant	Moderate: wetness.	Moderate: wetness.	Moderate: wetness, bedrock.	Summer, fall, winter.	Slight	Slight	Moderate: bedrock.
57A*:							
Assinins	Moderate: wetness.	Moderate: wetness.	Moderate: wetness.	Summer, fall, winter.	Slight	Slight	Slight.
Skanee	Severe: wetness.	Severe: wetness.	Severe: wetness.	Summer, winter	Slight	Slight	Slight.

See footnote at end of table.

TABLE 8.--EQUIPMENT LIMITATIONS ON WOODLAND--Continued

Soil name and map symbol	Ratings for most limiting season(s)			Preferred operating season(s)	Ratings for preferred operating season(s)		
	Logging areas and skid roads	Landings	Logging roads		Logging areas and skid roads	Landings	Logging roads
59B Amasa	Slight	Moderate: slope.	Slight	Year round	Slight	Moderate: slope.	Slight.
59D Amasa	Slight	Severe: slope.	Slight	Year round	Slight	Severe: slope.	Slight.
59E Amasa	Moderate: slope.	Severe: slope.	Moderate: slope.	Year round	Moderate: slope.	Severe: slope.	Moderate: slope.
59F Amasa	Severe: slope.	Severe: slope.	Severe: slope.	Year round	Severe: slope.	Severe: slope.	Severe: slope.
60B Fence	Slight	Moderate: slope.	Slight	Year round	Slight	Moderate: slope.	Slight.
61B Ishpeming	Slight	Moderate: slope.	Moderate: bedrock.	Year round	Slight	Moderate: slope.	Moderate: bedrock.
61D Ishpeming	Slight	Severe: slope.	Moderate: bedrock.	Year round	Slight	Severe: slope.	Moderate: bedrock.
65B Ocqueoc	Moderate: sandy.	Moderate: slope, sandy.	Moderate: sandy.	Spring, fall, winter.	Slight	Moderate: slope.	Slight.
66B*:							
Champion	Severe: wetness.	Severe: wetness.	Severe: wetness.	Summer, winter	Slight	Slight	Slight.
Net	Severe: wetness.	Severe: wetness.	Severe: wetness.	Summer, winter	Moderate: stones.	Moderate: stones.	Moderate: stones.
67*:							
Witbeck	Severe: wetness, stones.	Severe: wetness, stones.	Severe: wetness, stones.	Summer, winter	Severe: stones.	Severe: stones.	Severe: stones.
Tacoosh	Severe: wetness, low strength.	Severe: wetness, low strength.	Severe: wetness, low strength.	Winter	Moderate: low strength.	Severe: low strength.	Moderate: low strength.
68B Amasa	Slight	Moderate: slope.	Slight	Year round	Slight	Moderate: slope.	Slight.
68D Amasa	Slight	Severe: slope.	Slight	Year round	Slight	Severe: slope.	Slight.

See footnote at end of table.

TABLE 8.--EQUIPMENT LIMITATIONS ON WOODLAND--Continued

Soil name and map symbol	Ratings for most limiting season(s)			Preferred operating season(s)	Ratings for preferred operating season(s)		
	Logging areas and skid roads	Landings	Logging roads		Logging areas and skid roads	Landings	Logging roads
69E*:							
Yalmer	Moderate: slope, sandy.	Severe: slope.	Moderate: slope, sandy.	Spring, fall, winter.	Moderate: slope.	Severe: slope.	Moderate: slope.
Munising	Moderate: slope.	Severe: slope.	Moderate: slope.	Year round	Moderate: slope.	Severe: slope.	Moderate: slope.
69F*:							
Yalmer	Severe: slope.	Severe: slope.	Severe: slope.	Spring, fall, winter.	Severe: slope.	Severe: slope.	Severe: slope.
Munising	Severe: slope.	Severe: slope.	Severe: slope.	Year round	Severe: slope.	Severe: slope.	Severe: slope.
70 Winterfield	Severe: wetness.	Severe: wetness.	Moderate: wetness, flooding.	Summer, fall, winter.	Slight	Slight	Slight.
71A Pelkie	Slight	Slight	Moderate: flooding.	Summer, fall, winter.	Slight	Slight	Slight.
72 Sturgeon	Severe: wetness.	Severe: wetness.	Moderate: wetness.	Summer, winter	Slight	Slight	Slight.
73 Arnheim	Severe: wetness.	Severe: wetness.	Severe: wetness.	Winter	Slight	Slight	Slight.
74B Waiska Variant	Slight	Slight	Slight	Year round	Slight	Slight	Slight.
75D Fence	Moderate: slope.	Severe: slope.	Moderate: slope.	Year round	Moderate: slope.	Severe: slope.	Moderate: slope.
76A Allendale	Moderate: wetness.	Moderate: wetness.	Moderate: wetness.	Summer, fall, winter.	Slight	Slight	Slight.
78B*:							
Champion	Severe: wetness.	Severe: wetness.	Severe: wetness.	Summer, winter	Slight	Moderate: slope.	Slight.
Michigamme	Severe: wetness.	Severe: wetness.	Severe: wetness.	Summer, winter	Slight	Moderate: slope.	Moderate: bedrock.
78D*:							
Champion	Severe: wetness.	Severe: wetness, slope.	Severe: wetness.	Summer, winter	Slight	Severe: slope.	Slight.

See footnote at end of table.

TABLE 8.--EQUIPMENT LIMITATIONS ON WOODLAND--Continued

Soil name and map symbol	Ratings for most limiting season(s)			Preferred operating season(s)	Ratings for preferred operating season(s)		
	Logging areas and skid roads	Landings	Logging roads		Logging areas and skid roads	Landings	Logging roads
78D*:							
Michigamme	Severe: wetness.	Severe: wetness, slope.	Severe: wetness.	Summer, winter	Slight	Severe: slope.	Moderate: bedrock.
78E*:							
Champion	Moderate: slope.	Severe: slope.	Moderate: slope.	Year round	Moderate: slope.	Severe: slope.	Moderate: slope.
Michigamme	Moderate: slope.	Severe: slope.	Moderate: slope.	Year round	Moderate: slope.	Severe: slope.	Moderate: slope, bedrock.
79B Nunica	Slight	Slight	Slight	Year round	Slight	Slight	Slight.
79D Nunica	Slight	Severe slope.	Slight	Year round	Slight	Severe: slope.	Slight.
80A Bowers	Severe: wetness.	Severe: wetness.	Severe: wetness.	Summer, winter	Moderate: clayey subsoil.	Moderate: clayey subsoil.	Moderate: clayey subsoil.
81A Burt Variant	Moderate: wetness.	Moderate: wetness.	Severe: bedrock.	Summer, fall, winter.	Slight	Slight	Severe: bedrock.
82 Roscommon Variant	Moderate: wetness.	Moderate: wetness.	Moderate: wetness, bedrock.	Summer, winter	Slight	Slight	Moderate: bedrock.
83E*:							
Nunica	Severe: slope.	Severe: slope.	Severe: slope.	Year round	Severe: slope.	Severe: slope.	Severe: slope.
Ontonagon	Severe: slope.	Severe: slope.	Severe: slope.	Year round	Severe: slope.	Severe: slope.	Severe: slope.
84A Channing	Severe: wetness.	Severe: wetness.	Severe: wetness.	Summer, winter	Slight	Slight	Slight.
86A*:							
Net	Severe: wetness.	Severe: wetness.	Severe: wetness.	Summer, winter	Moderate: stones.	Moderate: stones.	Moderate: stones.
Witbeck	Severe: wetness, stones.	Severe: wetness, stones.	Severe: wetness, stones.	Summer, winter	Severe: stones.	Severe: stones.	Severe: stones.

See footnote at end of table.

TABLE 8.--EQUIPMENT LIMITATIONS ON WOODLAND--Continued

Soil name and map symbol	Ratings for most limiting season(s)			Preferred operating season(s)	Ratings for preferred operating season(s)		
	Logging areas and skid roads	Landings	Logging roads		Logging areas and skid roads	Landings	Logging roads
87A*:							
Skanee	Severe: wetness.	Severe: wetness.	Severe: wetness.	Summer, winter	Slight	Slight	Slight.
Gay	Severe: wetness.	Severe: wetness.	Severe: wetness.	Summer, winter	Slight	Slight	Slight.
88B*:							
Munising	Severe: wetness.	Severe: wetness, slope.	Severe: wetness.	Summer, winter	Slight	Severe: slope.	Slight.
Yalmer	Moderate: sandy.	Severe: slope.	Moderate: sandy.	Spring, fall, winter.	Slight	Severe: slope.	Slight.
88D*:							
Munising	Moderate: slope.	Severe: slope.	Moderate: slope.	Year round	Moderate: slope.	Severe: slope.	Moderate: slope.
Yalmer	Moderate: slope, sandy.	Severe: slope.	Moderate: slope, sandy.	Spring, fall, winter.	Moderate: slope.	Severe: slope.	Moderate: slope.
88E*:							
Yalmer	Severe: slope.	Severe: slope.	Severe: slope.	Spring, fall, winter.	Severe: slope.	Severe: slope.	Severe: slope.
Munising	Severe: slope.	Severe: slope.	Severe: slope.	Year round	Severe: slope.	Severe: slope.	Severe: slope.
91B*:							
Keweenaw	Slight	Moderate: slope.	Slight	Year round	Slight	Moderate: slope.	Slight.
Kalkaska	Moderate: sandy.	Moderate: slope, sandy.	Moderate: sandy.	Spring, fall, winter.	Slight	Moderate: slope.	Slight.
91D*:							
Keweenaw	Slight	Severe: slope.	Slight	Year round	Slight	Severe: slope.	Slight.
Kalkaska	Moderate: sandy.	Severe: slope.	Moderate: sandy.	Spring, fall, winter.	Slight	Severe: slope.	Slight.
91E*:							
Keweenaw	Moderate: slope.	Severe: slope.	Moderate: slope.	Year round	Moderate: slope.	Severe: slope.	Moderate: slope.

See footnote at end of table.

TABLE 8.--EQUIPMENT LIMITATIONS ON WOODLAND--Continued

Soil name and map symbol	Ratings for most limiting season(s)			Preferred operating season(s)	Ratings for preferred operating season(s)		
	Logging areas and skid roads	Landings	Logging roads		Logging areas and skid roads	Landings	Logging roads
91E*:							
Kalkaska	Moderate: slope, sandy.	Severe: slope.	Moderate: slope, sandy.	Spring, fall, winter.	Moderate: slope.	Severe: slope.	Moderate: slope.
92B*:							
Keweenaw	Slight	Severe: slope.	Slight	Year round	Slight	Severe: slope.	Slight.
Kalkaska	Moderate: sandy.	Severe: slope.	Moderate: sandy.	Spring, fall, winter.	Slight	Severe: slope.	Slight.
92D*:							
Keweenaw	Moderate: slope.	Severe: slope.	Moderate: slope.	Year round	Moderate: slope.	Severe: slope.	Moderate: slope.
Kalkaska	Moderate: slope, sandy.	Severe: slope.	Moderate: slope, sandy.	Spring, fall, winter.	Moderate: slope.	Severe: slope.	Moderate: slope.
92E*:							
Keweenaw	Severe: slope.	Severe: slope.	Severe: slope.	Year round	Severe: slope.	Severe: slope.	Severe: slope.
Kalkaska	Severe: slope.	Severe: slope.	Severe: slope.	Spring, fall, winter.	Severe: slope.	Severe: slope.	Severe: slope.
93B*:							
Deerton	Moderate: sandy.	Severe: slope.	Moderate: bedrock, sandy.	Spring, fall, winter.	Slight	Severe: slope.	Moderate: bedrock.
Abbaye	Slight	Severe: slope.	Moderate: bedrock.	Year round	Slight	Severe: slope.	Moderate: bedrock.
93D*:							
Deerton	Moderate: slope, sandy.	Severe: slope.	Moderate: slope, bedrock, sandy.	Spring, fall, winter.	Moderate: slope.	Severe: slope.	Moderate: slope, bedrock.
Abbaye	Moderate: slope.	Severe: slope.	Moderate: slope, bedrock.	Year round	Moderate: slope.	Severe: slope.	Moderate: slope, bedrock.
94B Deerton	Moderate: sandy.	Moderate: slope, sandy.	Moderate: bedrock, sandy.	Spring, fall, winter.	Slight	Moderate: slope.	Moderate: bedrock.

See footnote at end of table.

TABLE 8.--EQUIPMENT LIMITATIONS ON WOODLAND--Continued

Soil name and map symbol	Ratings for most limiting season(s)			Preferred operating season(s)	Ratings for preferred operating season(s)		
	Logging areas and skid roads	Landings	Logging roads		Logging areas and skid roads	Landings	Logging roads
95B---------- Amasa	Slight---------	Moderate slope.	Slight--------	Year round-----	Slight--------	Moderate: slope.	Slight.
95D---------- Amasa	Slight---------	Severe: slope.	Slight--------	Year round-----	Slight--------	Severe slope.	Slight.
96A---------- Richter Variant	Severe: wetness.	Severe: wetness.	Severe: wetness.	Summer, winter	Slight--------	Slight--------	Slight.
98A*:							
Burt Variant----	Moderate: wetness.	Moderate: wetness.	Severe: bedrock.	Summer, fall, winter.	Slight--------	Slight--------	Severe: bedrock.
Burt----------	Moderate: wetness.	Moderate: wetness.	Severe: bedrock.	Summer, fall, winter.	Slight--------	Slight--------	Severe: bedrock.
99B*:							
Rubicon---------	Moderate: sandy.	Moderate: slope, sandy.	Moderate: sandy.	Spring, fall, winter.	Slight--------	Moderate: slope.	Slight.
99B*:							
Rousseau--------	Moderate: sandy.	Moderate: slope, sandy.	Moderate: sandy.	Spring, fall, winter.	Slight--------	Moderate: slope.	Slight.
Ocqueoc---------	Moderate: sandy.	Moderate: slope, sandy.	Moderate: sandy.	Spring, fall, winter.	Slight--------	Moderate: slope.	Slight.
99D*:							
Rubicon---------	Moderate: sandy.	Severe: slope.	Moderate: sandy.	Spring, fall, winter.	Slight--------	Severe: slope.	Slight.
Rousseau--------	Moderate: sandy.	Severe: slope.	Moderate: sandy.	Spring, fall, winter.	Slight--------	Severe: slope.	Slight.
Ocqueoc---------	Moderate: sandy.	Severe: slope.	Moderate: sandy.	Spring, fall, winter.	Slight--------	Severe: slope.	Slight.
100B---------- Amasa	Slight---------	Moderate: slope.	Slight--------	Year round-----	Slight--------	Moderate: slope.	Slight.
100D---------- Amasa	Slight---------	Severe: slope.	Slight--------	Year round-----	Slight--------	Severe: slope.	Slight.
100E---------- Amasa	Moderate: slope.	Severe: slope.	Moderate: slope.	Year round-----	Moderate: slope.	Severe: slope.	Moderate: slope.

See footnote at end of table.

TABLE 8.--EQUIPMENT LIMITATIONS ON WOODLAND--Continued

Soil name and map symbol	Ratings for most limiting season(s)			Preferred operating season(s)	Ratings for preferred operating season(s)		
	Logging areas and skid roads	Landings	Logging roads		Logging areas and skid roads	Landings	Logging roads
101E*:							
Peshekee	Severe: rock outcrop.	Severe: slope, rock outcrop.	Severe: rock outcrop, bedrock.	Year round	Severe: rock outcrop.	Severe: slope, rock outcrop.	Severe: rock outcrop, bedrock.
Rock outcrop.							
101F*:							
Peshekee	Severe: slope, rock outcrop.	Severe: slope, rock outcrop.	Severe: slope, rock outcrop, bedrock.	Year round	Severe: slope, rock outcrop.	Severe: slope, rock outcrop.	Severe: slope, rock outcrop, bedrock.
Rock outcrop.							
102A Channing	Severe: wetness.	Severe: wetness.	Severe: wetness.	Summer, winter	Moderate: stones.	Moderate: stones.	Moderate: stones.
106B Yalmer	Moderate: sandy.	Moderate: slope, sandy.	Moderate: sandy.	Spring, fall, winter.	Slight	Moderate: slope.	Slight.
107F*:							
Rousseau	Severe: slope.	Severe: slope.	Severe: slope.	Spring, fall, winter.	Severe: slope.	Severe: slope.	Severe: slope.
Ocqueoc	Severe: slope.	Severe: slope.	Severe: slope.	Spring, fall, winter.	Severe: slope.	Severe: slope.	Severe: slope.
108B*:							
Champion	Severe: wetness.	Severe: wetness.	Severe: wetness.	Summer, winter	Slight	Moderate: slope.	Slight.
Net	Severe: wetness.	Severe: wetness.	Severe: wetness.	Summer, winter	Moderate: stones.	Moderate: stones.	Moderate: stones.
Michigamme	Severe: wetness.	Severe: wetness.	Severe: wetness.	Summer, winter	Slight	Moderate: slope.	Moderate: bedrock.
109F*:							
Rousseau	Severe: slope.	Severe: slope.	Severe: slope.	Spring, fall, winter.	Severe: slope.	Severe: slope.	Severe: slope.
Fence	Severe: slope.	Severe: slope.	Severe: slope.	Year round	Severe: slope.	Severe: slope.	Severe: slope.
Ocqueoc	Severe: slope.	Severe: slope.	Severe: slope.	Spring, fall, winter.	Severe: slope.	Severe: slope.	Severe: slope.

See footnote at end of table.

TABLE 8.--EQUIPMENT LIMITATIONS ON WOODLAND--Continued

Soil name and map symbol	Ratings for most limiting season(s)			Preferred operating season(s)	Ratings for preferred operating season(s)		
	Logging areas and skid roads	Landings	Logging roads		Logging areas and skid roads	Landings	Logging roads
110E*:							
Ishpeming	Severe: rock outcrop.	Severe: slope, rock outcrop.	Severe: rock outcrop.	Year round	Severe: rock outcrop.	Severe: slope, rock outcrop.	Severe: rock outcrop.
Rock outcrop.							
111B*:							
Yalmer	Moderate: sandy.	Moderate: sandy	Moderate: sandy.	Spring, fall, winter.	Slight	Slight	Slight.
Assinins	Moderate: wetness.	Moderate: wetness.	Moderate: wetness.	Summer, fall, winter.	Slight	Slight	Slight.
112A Assinins	Moderate: wetness.	Moderate: wetness.	Moderate: wetness.	Summer, fall, winter.	Slight	Slight	Slight.
113B Petticoat	Slight	Moderate: slope.	Slight	Year round	Slight	Moderate: slope.	Slight.
113D Petticoat	Slight	Severe: slope.	Slight	Year round	Slight	Severe: slope.	Slight.
114B Peshekee Variant	Slight	Moderate: slope.	Severe: bedrock.	Year round	Slight	Moderate: slope.	Severe: bedrock.
114E Peshekee Variant	Moderate: slope.	Severe: slope.	Severe: bedrock.	Year round	Moderate: slope.	Severe: slope.	Severe: bedrock.
115D*:							
Munising	Severe: wetness.	Severe: wetness.	Severe: wetness.	Summer, winter	Slight	Severe: slope.	Slight.
Michigamme	Severe: wetness.	Severe: wetness.	Severe: wetness.	Summer, winter	Slight	Severe: slope.	Moderate: bedrock.
115E*:							
Munising	Moderate: slope.	Severe: slope.	Moderate: slope.	Year round	Moderate: slope.	Severe: slope.	Moderate: slope.
Michigamme	Moderate: slope.	Severe: slope.	Moderate: slope.	Year round	Moderate: slope.	Severe: slope.	Moderate: slope, bedrock.

* See description of the map unit for composition and behavior characteristics of the map unit.

TABLE 9.--RECREATIONAL DEVELOPMENT

(Some terms that describe restrictive soil features are defined in the Glossary. See text for definitions of "slight," "moderate," and "severe." Absence of an entry indicates that the soil was not rated)

Soil name and map symbol	Camp areas	Picnic areas	Playgrounds	Paths and trails
10B Watton	Moderate: percs slowly.	Moderate: percs slowly.	Moderate: slope, percs slowly.	Slight.
10D Watton	Moderate: slope.	Moderate: slope.	Severe: slope.	Severe: erodes easily.
11A Alstad	Severe: wetness.	Moderate: wetness.	Severe: wetness.	Moderate: wetness.
12 Alstad Variant	Severe: ponding.	Severe: ponding.	Severe: ponding.	Severe: ponding.
13B Grayling	Severe: too sandy.	Severe: too sandy.	Severe: too sandy.	Severe: too sandy.
13D Grayling	Severe: too sandy.	Severe: too sandy.	Severe: slope, too sandy.	Severe: too sandy.
14B Rubicon	Severe: too sandy.	Severe: too sandy.	Severe: too sandy.	Severe: too sandy.
14D Rubicon	Severe: too sandy.	Severe: too sandy.	Severe: slope, too sandy.	Severe: too sandy.
14E, 14F Rubicon	Severe: slope, too sandy.	Severe: slope, too sandy.	Severe: slope, too sandy.	Severe: too sandy, slope.
15B Champion	Severe: wetness.	Moderate: wetness, large stones.	Severe: large stones, wetness.	Moderate: large stones, wetness.
15D Champion	Severe: wetness.	Moderate: slope, wetness, large stones.	Severe: large stones, slope, wetness.	Moderate: large stones, wetness.
15E Champion	Severe: slope.	Severe: slope.	Severe: large stones, slope.	Severe: slope.
16A Croswell	Severe: too sandy.	Severe: too sandy.	Severe: too sandy.	Severe: too sandy.
17A Au Gres	Severe: wetness, too sandy.	Severe: wetness, too sandy.	Severe: too sandy, wetness.	Severe: wetness, too sandy.
18 Kinross	Severe: ponding, too sandy.	Severe: ponding, too sandy.	Severe: too sandy, ponding.	Severe: ponding, too sandy.
19*:				
Dawson	Severe: ponding, excess humus.	Severe: ponding, excess humus.	Severe: excess humus, ponding.	Severe: ponding, excess humus.

See footnote at end of table

TABLE 9.--RECREATIONAL DEVELOPMENT--Continued

Soil name and map symbol	Camp areas	Picnic areas	Playgrounds	Paths and trails
19*:				
Greenwood	Severe: ponding, excess humus.	Severe: ponding, excess humus.	Severe: excess humus, ponding.	Severe: ponding, excess humus.
20*:				
Carbondale	Severe: ponding, excess humus.	Severe: ponding, excess humus.	Severe: excess humus, ponding.	Severe: ponding, excess humus.
Tacoosh	Severe: ponding, excess humus.	Severe: ponding, excess humus.	Severe: excess humus, ponding.	Severe: ponding, excess humus.
21B Allouez	Moderate: small stones.	Moderate: small stones.	Severe: small stones.	Slight.
23B*:				
Munising	Severe: wetness.	Moderate: wetness, percs slowly.	Severe: wetness.	Moderate: wetness.
Yalmer	Moderate: wetness, too sandy.	Moderate: wetness, too sandy.	Moderate: slope, small stones.	Moderate: wetness, too sandy.
23D*:				
Munising	Severe: wetness.	Moderate: slope, wetness, percs slowly.	Severe: slope, wetness.	Moderate: wetness.
Yalmer	Moderate: slope, wetness, too sandy.	Moderate: slope, wetness, too sandy.	Severe: slope.	Moderate: wetness, too sandy.
24B Munising	Severe: wetness.	Moderate: wetness, percs slowly.	Severe: wetness.	Moderate: wetness.
24D Munising	Severe: slope.	Severe: slope.	Severe: slope.	Moderate: slope.
25A Net	Severe: wetness.	Severe: wetness.	Severe: wetness.	Severe: wetness.
26 Witbeck	Severe: ponding, excess humus.	Severe: ponding, excess humus.	Severe: large stones, excess humus, ponding.	Severe: large stones, ponding, excess humus.
27B Munising	Severe: wetness.	Moderate: wetness, percs slowly.	Severe: wetness.	Moderate: wetness.
29D*:				
Grayling	Severe: too sandy.	Severe: too sandy.	Severe: slope, too sandy.	Severe: too sandy.
Kinross	Severe: ponding, too sandy.	Severe: ponding, too sandy.	Severe: too sandy, ponding.	Severe: ponding, too sandy.

See footnote at end of table.

TABLE 9.--RECREATIONAL DEVELOPMENT--Continued

Soil name and map symbol	Camp areas	Picnic areas	Playgrounds	Paths and trails
30B Kalkaska	Severe: too sandy.	Severe: too sandy.	Severe: too sandy.	Severe: too sandy.
30D Kalkaska	Severe: too sandy.	Severe: too sandy.	Severe: slope, too sandy.	Severe: too sandy.
30E, 30F Kalkaska	Severe: slope, too sandy.	Severe: slope, too sandy.	Severe: slope, too sandy.	Severe: too sandy, slope.
31B Kallio	Severe: wetness.	Severe: wetness.	Severe: large stones, wetness.	Severe: wetness.
31D Kallio	Severe: wetness.	Severe: wetness.	Severe: large stones, slope, wetness.	Severe: wetness.
32A*:				
Kinross	Severe: ponding, too sandy.	Severe: ponding, too sandy.	Severe: too sandy, ponding.	Severe: ponding, too sandy.
Croswell	Severe: too sandy.	Severe: too sandy.	Severe: too sandy.	Severe: too sandy.
33*:				
Histosols.				
Aquents.				
34B Ontonagon	Moderate: percs slowly.	Moderate: percs slowly.	Moderate: slope, percs slowly.	Slight.
35A Rudyard	Severe: wetness.	Severe: wetness.	Severe: wetness.	Severe: wetness.
36A Skanee	Severe: wetness.	Severe: wetness.	Severe: wetness.	Severe: wetness.
37 Pickford	Severe: ponding, percs slowly.	Severe: ponding, percs slowly.	Severe: ponding, percs slowly.	Severe: ponding.
38B Froberg	Moderate: percs slowly.	Moderate: percs slowly.	Moderate: slope, percs slowly.	Slight.
39B*:				
Munising	Severe: wetness.	Moderate: wetness, percs slowly.	Severe: wetness.	Moderate: wetness.
Skanee	Severe: wetness.	Severe: wetness.	Severe: wetness.	Severe: wetness.
43A Moquah	Severe: flooding.	Moderate: percs slowly.	Moderate: flooding, percs slowly.	Slight.

See footnote at end of table.

TABLE 9.--RECREATIONAL DEVELOPMENT--Continued

Soil name and map symbol	Camp areas	Picnic areas	Playgrounds	Paths and trails
44B*:				
Michigamme	Severe: wetness.	Moderate: wetness, large stones.	Severe: large stones, wetness.	Moderate: large stones, wetness.
Rock outcrop.				
44D*:				
Michigamme	Severe: wetness.	Moderate: slope, wetness, large stones.	Severe: large stones, slope, wetness.	Moderate: large stones, wetness.
Rock outcrop.				
44E*, 44F*:				
Michigamme	Severe: slope.	Severe: slope.	Severe: large stones, slope.	Severe: slope.
Rock outcrop.				
47B Yalmer	Moderate: wetness, too sandy.	Moderate: wetness, too sandy.	Moderate: slope, small stones.	Moderate: wetness, too sandy.
48B Rousseau	Severe: too sandy.	Severe: too sandy.	Severe: too sandy.	Severe: too sandy.
49 Gay	Severe: ponding.	Severe: ponding.	Severe: ponding.	Severe: ponding.
50B Abbaye	Slight	Slight	Moderate: slope, thin layer, area reclaim.	Slight.
50D Abbaye	Moderate: slope.	Moderate: slope.	Severe: slope.	Slight.
51A Zeba	Severe: wetness.	Severe: wetness.	Severe: wetness.	Severe: wetness.
52 Gay Variant	Severe: ponding.	Severe: ponding.	Severe: ponding.	Severe: ponding.
53B Onota Variant	Severe: small stones, too sandy, thin layer.	Severe: too sandy, small stones, thin layer.	Severe: small stones, too sandy, thin layer.	Severe: too sandy, small stones.
54B Waiska	Severe: too sandy.	Severe: too sandy.	Severe: too sandy.	Severe: too sandy.
54D Waiska	Severe: too sandy.	Severe: too sandy.	Severe: slope, too sandy.	Severe: too sandy.
56A Deerton Variant	Severe: wetness, too sandy.	Severe: wetness, too sandy.	Severe: too sandy, wetness.	Severe: wetness, too sandy.

See footnote at end of table.

TABLE 9.--RECREATIONAL DEVELOPMENT--Continued

Soil name and map symbol	Camp areas	Picnic areas	Playgrounds	Paths and trails
57A*:				
Assinins	Severe: wetness, too sandy.	Severe: wetness, too sandy.	Severe: too sandy, wetness.	Severe: wetness, too sandy.
Skanee	Severe: wetness.	Severe: wetness.	Severe: wetness.	Severe: wetness.
59B Amasa	Moderate: large stones, small stones.	Moderate: large stones, small stones.	Severe: large stones, small stones.	Moderate: large stones.
59D Amasa	Moderate: slope, large stones, small stones.	Moderate: slope, large stones, small stones.	Severe: large stones, slope, small stones.	Moderate: large stones.
59E, 59F Amasa	Severe: slope.	Severe: slope.	Severe: large stones, slope, small stones.	Severe: slope.
60B Fence	Moderate: percs slowly.	Moderate: percs slowly.	Moderate: slope, percs slowly.	Slight.
61B Ishpeming	Moderate: too sandy.	Moderate: too sandy.	Moderate: slope, too sandy.	Moderate: too sandy.
61D Ishpeming	Moderate: slope, too sandy.	Moderate: slope, too sandy.	Severe: slope.	Moderate: too sandy.
62*. Beaches				
64*. Pits				
65B Ocqueoc	Severe: too sandy.	Severe: too sandy.	Severe: too sandy.	Severe: too sandy.
66B*:				
Champion	Severe: wetness.	Moderate: wetness, large stones.	Severe: large stones, wetness.	Moderate: large stones, wetness.
Net	Severe: wetness.	Severe: wetness.	Severe: wetness.	Severe: wetness.
67*:				
Witbeck	Severe: ponding, excess humus.	Severe: ponding, excess humus.	Severe: large stones, excess humus, ponding.	Severe: large stones, ponding, excess humus.
Tacoosh	Severe: ponding, excess humus.	Severe: ponding, excess humus.	Severe: excess humus, ponding.	Severe: ponding, excess humus.
68B Amasa	Slight	Slight	Moderate: slope.	Slight.

See footnote at end of table.

TABLE 9.--RECREATIONAL DEVELOPMENT--Continued

Soil name and map symbol	Camp areas	Picnic areas	Playgrounds	Paths and trails
68D---------- Amasa	Moderate: slope.	Moderate: slope.	Severe: slope.	Severe: erodes easily.
69E*, 69F*:				
Yalmer----------	Severe: slope.	Severe: slope.	Severe: slope.	Severe: slope.
Munising----------	Severe: slope.	Severe: slope.	Severe: slope.	Severe: slope.
70---------- Winterfield	Severe: flooding, wetness.	Severe: wetness.	Severe: wetness.	Severe: wetness.
71A---------- Pelkie	Severe: flooding.	Slight----------	Moderate: flooding.	Slight.
72---------- Sturgeon	Severe: flooding, wetness.	Severe: wetness.	Severe: wetness.	Severe: wetness.
73---------- Arnheim	Severe: flooding, wetness.	Severe: wetness.	Severe: wetness.	Severe: wetness.
74B---------- Waiska Variant	Severe: small stones, too sandy.	Severe: too sandy, small stones.	Severe: small stones, too sandy.	Severe: too sandy, small stones.
75D---------- Fence	Severe: slope.	Severe: slope.	Severe: slope.	Severe: erodes easily.
76A---------- Allendale	Severe: wetness.	Moderate: wetness, percs slowly.	Severe: wetness.	Moderate: wetness.
77A*:				
Udipsamments.				
Udorthents.				
78B*:				
Champion----------	Severe: wetness.	Moderate: wetness, large stones.	Severe: large stones, wetness.	Moderate: large stones, wetness.
Michigamme----------	Severe: wetness.	Moderate: wetness, large stones.	Severe: large stones, wetness.	Moderate: large stones, wetness.
78D*:				
Champion----------	Severe: wetness.	Moderate: slope, wetness, large stones.	Severe: large stones, slope, wetness.	Moderate: large stones, wetness.
Michigamme----------	Severe: wetness.	Moderate: slope, wetness, large stones.	Severe: large stones, slope, wetness.	Moderate: large stones, wetness.

See footnote at end of table.

TABLE 9.--RECREATIONAL DEVELOPMENT--Continued

Soil name and map symbol	Camp areas	Picnic areas	Playgrounds	Paths and trails
78E*:				
Champion	Severe: slope.	Severe: slope.	Severe: large stones, slope.	Severe: slope.
Michigamme	Severe: slope.	Severe: slope.	Severe: large stones, slope.	Severe: slope.
79B Nunica	Slight	Slight	Moderate: slope.	Slight.
79D Nunica	Moderate: slope.	Moderate: slope.	Severe: slope.	Severe: erodes easily.
80A Bowers	Severe: wetness.	Moderate: wetness.	Severe: wetness.	Moderate: wetness.
81A Burt Variant	Severe: small stones, wetness.	Severe: wetness, small stones.	Severe: small stones, wetness.	Severe: wetness, small stones.
82 Roscommon Variant	Severe: ponding, too sandy.	Severe: ponding, too sandy.	Severe: too sandy, ponding.	Severe: ponding, too sandy.
83E*:				
Nunica	Severe: slope.	Severe: slope.	Severe: slope.	Severe: slope, erodes easily.
Ontonagon	Severe: slope.	Severe: slope.	Severe: slope.	Severe: slope, erodes easily.
84A Channing	Severe: wetness.	Severe: wetness.	Severe: wetness.	Severe: wetness.
86A*:				
Net	Severe: wetness.	Severe: wetness.	Severe: wetness.	Severe: wetness.
Witbeck	Severe: ponding, excess humus.	Severe: ponding, excess humus.	Severe: large stones, excess humus, ponding.	Severe: large stones, ponding, excess humus.
87A*:				
Skanee	Severe: wetness.	Severe: wetness.	Severe: wetness.	Severe: wetness.
Gay	Severe: ponding.	Severe: ponding.	Severe: ponding.	Severe: ponding.
88B*:				
Munising	Severe: wetness.	Moderate: wetness, percs slowly.	Severe: wetness.	Moderate: wetness.
Yalmer	Moderate: wetness, too sandy.	Moderate: wetness, too sandy.	Moderate: slope, small stones.	Moderate: wetness, too sandy.

See footnote at end of table.

TABLE 9.--RECREATIONAL DEVELOPMENT--Continued

Soil name and map symbol	Camp areas	Picnic areas	Playgrounds	Paths and trails
88D*:				
Munising	Severe: slope.	Severe: slope.	Severe: slope.	Moderate: slope.
Yalmer	Severe: slope.	Severe: slope.	Severe: slope.	Moderate: too sandy, slope.
88E*:				
Yalmer	Severe: slope.	Severe: slope.	Severe: slope.	Severe: slope.
Munising	Severe: slope.	Severe: slope.	Severe: slope.	Severe: slope.
91B*:				
Keweenaw	Slight	Slight	Moderate: slope, small stones.	Slight.
Kalkaska	Severe: too sandy.	Severe: too sandy.	Severe: too sandy.	Severe: too sandy.
91D*:				
Keweenaw	Moderate: slope.	Moderate: slope.	Severe: slope.	Slight.
Kalkaska	Severe: too sandy.	Severe: too sandy.	Severe: slope, too sandy.	Severe: too sandy.
91E*:				
Keweenaw	Severe: slope.	Severe: slope.	Severe: slope.	Severe: slope.
Kalkaska	Severe: slope, too sandy.	Severe: slope, too sandy.	Severe: slope, too sandy.	Severe: too sandy, slope.
92B*:				
Keweenaw	Slight	Slight	Moderate: slope, small stones.	Slight.
Kalkaska	Severe: too sandy.	Severe: too sandy.	Severe: too sandy.	Severe: too sandy.
92D*:				
Keweenaw	Moderate: slope.	Moderate: slope.	Severe: slope.	Slight.
Kalkaska	Severe: too sandy.	Severe: too sandy.	Severe: slope, too sandy.	Severe: too sandy.
92E*:				
Keweenaw	Severe: slope.	Severe: slope.	Severe: slope.	Severe: slope.
Kalkaska	Severe: slope, too sandy.	Severe: slope, too sandy.	Severe: slope, too sandy.	Severe: too sandy, slope.

See footnote at end of table.

TABLE 9.--RECREATIONAL DEVELOPMENT--Continued

Soil name and map symbol	Camp areas	Picnic areas	Playgrounds	Paths and trails
93B*:				
Deerton	Severe: too sandy.	Severe: too sandy.	Severe: too sandy.	Severe: too sandy.
Abbaye	Slight	Slight	Moderate: slope, thin layer, area reclaim.	Slight.
93D*:				
Deerton	Severe: slope, too sandy.	Severe: slope, too sandy.	Severe: slope, too sandy.	Severe: too sandy.
Abbaye	Severe: slope.	Severe: slope.	Severe: slope.	Slight.
94B Deerton	Severe: too sandy.	Severe: too sandy.	Severe: too sandy.	Severe: too sandy.
95B Amasa	Slight	Slight	Moderate: slope.	Slight.
95D Amasa	Moderate: slope.	Moderate: slope.	Severe: slope.	Severe: erodes easily.
96A Richter Variant	Severe: wetness.	Severe: wetness.	Severe: wetness.	Severe: wetness.
98A*:				
Burt Variant	Severe: small stones, wetness.	Severe: wetness, small stones.	Severe: small stones, wetness.	Severe: wetness, small stones.
Burt	Severe: ponding, too sandy, thin layer.	Severe: ponding, too sandy, thin layer.	Severe: too sandy, ponding, thin layer.	Severe: ponding, too sandy.
99B*:				
Rubicon	Severe: too sandy.	Severe: too sandy.	Severe: too sandy.	Severe: too sandy.
Rousseau	Severe: too sandy.	Severe: too sandy.	Severe: too sandy.	Severe: too sandy.
Ocqueoc	Severe: too sandy.	Severe: too sandy.	Severe: too sandy.	Severe: too sandy.
99D*:				
Rubicon	Severe: too sandy.	Severe: too sandy.	Severe: slope, too sandy.	Severe: too sandy.
Rousseau	Severe: too sandy.	Severe: too sandy.	Severe: slope, too sandy.	Severe: too sandy.
Ocqueoc	Severe: too sandy.	Severe: too sandy.	Severe: slope, too sandy.	Severe: too sandy.

See footnote at end of table.

TABLE 9.--RECREATIONAL DEVELOPMENT--Continued

Soil name and map symbol	Camp areas	Picnic areas	Playgrounds	Paths and trails
100B---------- Amasa	Moderate: large stones, small stones.	Moderate: large stones, small stones.	Severe: large stones, small stones.	Moderate: large stones.
100D---------- Amasa	Moderate: slope, large stones, small stones.	Moderate: slope, large stones, small stones.	Severe: large stones, slope, small stones.	Moderate: large stones.
100E---------- Amasa	Severe: slope.	Severe: slope.	Severe: large stones, slope, small stones.	Severe: slope.
101E*, 101F*:				
Peshekee----------	Severe: slope, thin layer, area reclaim.	Severe: slope, thin layer, area reclaim.	Severe: large stones, slope, thin layer.	Severe: slope.
Rock outcrop.				
102A---------- Channing	Severe: wetness.	Severe: wetness.	Severe: wetness.	Severe: wetness.
105*:				
Pits.				
Dumps.				
106B---------- Yalmer	Moderate: wetness, too sandy.	Moderate: wetness, too sandy.	Moderate: slope, small stones.	Moderate: wetness, too sandy.
107F*:				
Rousseau----------	Severe: slope, too sandy.	Severe: slope, too sandy.	Severe: slope, too sandy.	Severe: too sandy, slope.
Ocqueoc----------	Severe: slope, too sandy.	Severe: slope, too sandy.	Severe: slope, too sandy.	Severe: too sandy, slope.
108B*:				
Champion----------	Severe: wetness.	Moderate: wetness, large stones.	Severe: large stones, wetness.	Moderate: large stones, wetness.
Net----------	Severe: wetness.	Severe: wetness.	Severe: wetness.	Severe: wetness.
Michigamme----------	Severe: wetness.	Moderate: wetness, large stones.	Severe: large stones, wetness.	Moderate: large stones, wetness.
109F*:				
Rousseau----------	Severe: slope, too sandy.	Severe: slope, too sandy.	Severe: slope, too sandy.	Severe: too sandy, slope.
Fence----------	Severe: slope.	Severe: slope.	Severe: slope.	Severe: slope, erodes easily.

See footnote at end of table.

TABLE 9.--RECREATIONAL DEVELOPMENT--Continued

Soil name and map symbol	Camp areas	Picnic areas	Playgrounds	Paths and trails
109F*:				
Ocqueoc	Severe: slope, too sandy.	Severe: slope, too sandy.	Severe: slope, too sandy.	Severe: too sandy, slope.
110E*:				
Ishpeming	Severe: slope.	Severe: slope.	Severe: slope.	Severe: slope.
Rock outcrop.				
111B*:				
Yalmer	Moderate: wetness, too sandy.	Moderate: wetness, too sandy.	Moderate: slope, small stones.	Moderate: wetness, too sandy.
Assinins	Severe: wetness, too sandy.	Severe: wetness, too sandy.	Severe: too sandy, wetness.	Severe: wetness, too sandy.
112A Assinins	Severe: wetness, too sandy.	Severe: wetness, too sandy.	Severe: too sandy, wetness.	Severe: wetness, too sandy.
113B Petticoat	Moderate: large stones.	Moderate: large stones.	Severe: large stones.	Moderate: large stones.
113D Petticoat	Moderate: slope, large stones.	Moderate: slope, large stones.	Severe: large stones, slope.	Moderate: large stones.
114B Peshekee Variant	Severe: large stones, thin layer.	Severe: large stones, thin layer.	Severe: large stones, small stones.	Severe: large stones.
114E Peshekee Variant	Severe: slope, large stones, depth to rock.	Severe: slope, large stones, thin layer.	Severe: large stones, slope, small stones.	Severe: large stones, slope.
115D*:				
Munising	Severe: wetness.	Moderate: slope, wetness, percs slowly.	Severe: slope, wetness.	Moderate: wetness.
Michigamme	Severe: wetness.	Moderate: slope, wetness, large stones.	Severe: large stones, slope, wetness.	Moderate: large stones, wetness.
115E*:				
Munising	Severe: slope.	Severe: slope.	Severe: slope.	Severe: slope.
Michigamme	Severe: slope.	Severe: slope.	Severe: large stones, slope.	Severe: slope.
116F*:				
Udorthents.				
Udipsamments.				

* See description of the map unit for composition and behavior characteristics of the map unit.

TABLE 10.--WILDLIFE HABITAT

(See text for definitions of "good," "fair," "poor," and "very poor." Absence of an entry indicates that the soil was not rated)

Soil name and map symbol	Potential for habitat elements							Potential as habitat for--		
	Grain and seed crops	Grasses and legumes	Wild herbaceous plants	Hardwood trees	Coniferous plants	Wetland plants	Shallow water areas	Openland wildlife	Woodland wildlife	Wetland wildlife
10B---------- Watton	Good	Good	Good	Good	Good	Very poor.	Very poor.	Good	Good	Very poor.
10D---------- Watton	Poor	Fair	Good	Good	Good	Very poor.	Very poor.	Fair	Good	Very poor.
11A---------- Alstad	Good	Good	Good	Good	Good	Fair	Fair	Good	Good	Fair.
12---------- Alstad Variant	Poor	Fair	Poor	Fair	Fair	Good	Fair	Poor	Fair	Poor.
13B---------- Grayling	Poor	Poor	Fair	Poor	Poor	Poor	Very poor.	Poor	Poor	Very poor.
13D---------- Grayling	Poor	Poor	Fair	Poor	Poor	Very poor.	Very poor.	Poor	Poor	Very poor.
14B---------- Rubicon	Poor	Poor	Fair	Fair	Fair	Poor	Very poor.	Poor	Fair	Very poor.
14D---------- Rubicon	Poor	Poor	Fair	Fair	Fair	Very poor.	Very poor.	Poor	Fair	Very poor.
14E, 14F---------- Rubicon	Very poor.	Poor	Fair	Fair	Fair	Very poor.	Very poor.	Poor	Fair	Very poor.
15B---------- Champion	Poor	Fair	Good	Fair	Fair	Poor	Poor	Fair	Fair	Very poor.
15D---------- Champion	Poor	Fair	Good	Fair	Fair	Very poor.	Very poor.	Fair	Fair	Very poor.
15E---------- Champion	Very poor.	Poor	Good	Fair	Fair	Very poor.	Very poor.	Poor	Fair	Very poor.
16A---------- Croswell	Poor	Poor	Fair	Good	Good	Poor	Very poor.	Poor	Fair	Very poor.
17A---------- Au Gres	Poor	Poor	Fair	Good	Good	Poor	Very poor.	Poor	Fair	Very poor.
18---------- Kinross	Very poor.	Poor	Poor	Fair	Fair	Good	Good	Very poor.	Fair	Good.
19*:										
Dawson----------	Very poor.	Poor	Poor	Poor	Poor	Good	Good	Poor	Poor	Good.
Greenwood---------	Very poor.	Poor	Poor	Poor	Poor	Good	Good	Poor	Poor	Good.
20*:										
Carbondale--------	Fair	Poor	Poor	Poor	Poor	Good	Good	Poor	Poor	Good.

See footnote at end of table.

TABLE 10.--WILDLIFE HABITAT--Continued

Soil name and map symbol	Potential for habitat elements							Potential as habitat for--		
	Grain and seed crops	Grasses and legumes	Wild herbaceous plants	Hardwood trees	Coniferous plants	Wetland plants	Shallow water areas	Openland wildlife	Woodland wildlife	Wetland wildlife
20*:										
Tacoosh	Very poor.	Poor	Poor	Poor	Poor	Good	Good	Poor	Poor	Good.
21B Allouez	Poor	Fair	Fair	Good	Good	Poor	Very poor.	Fair	Good	Very poor.
23B*:										
Munising	Fair	Good	Good	Fair	Fair	Poor	Poor	Good	Fair	Poor.
Yalmer	Fair	Fair	Fair	Good	Good	Poor	Very poor.	Fair	Good	Very poor.
23D*:										
Munising	Fair	Good	Good	Fair	Fair	Very poor.	Very poor.	Good	Fair	Very poor.
Yalmer	Fair	Fair	Fair	Good	Good	Very poor.	Very poor.	Fair	Good	Very poor.
24B Munising	Fair	Good	Good	Fair	Fair	Poor	Poor	Good	Fair	Poor.
24D Munising	Poor	Fair	Good	Good	Good	Very poor.	Very poor.	Fair	Good	Very poor.
25A Net	Poor	Fair	Fair	Fair	Fair	Fair	Fair	Fair	Fair	Fair.
26 Witbeck	Very poor.	Poor	Fair	Fair	Fair	Good	Good	Poor	Fair	Good.
27B Munising	Fair	Good	Good	Fair	Fair	Poor	Poor	Good	Fair	Poor.
29D*:										
Grayling	Poor	Poor	Fair	Poor	Poor	Very poor.	Very poor.	Poor	Poor	Very poor.
Kinross	Very poor.	Poor	Poor	Fair	Fair	Good	Good	Very poor.	Fair	Good.
30B, 30D Kalkaska	Poor	Poor	Fair	Good	Good	Very poor.	Very poor.	Poor	Fair	Very poor.
30E, 30F Kalkaska	Very poor.	Poor	Fair	Good	Good	Very poor.	Very poor.	Poor	Fair	Very poor.
31B Kallio	Poor	Poor	Fair	Good	Good	Poor	Very poor.	Poor	Good	Very poor.
31D Kallio	Poor	Poor	Fair	Good	Good	Very poor.	Very poor.	Poor	Good	Very poor.
32A*:										
Kinross	Very poor.	Poor	Poor	Fair	Fair	Good	Good	Very poor.	Fair	Good.
Croswell	Poor	Poor	Fair	Good	Good	Poor	Very poor.	Poor	Fair	Very poor.

See footnote at end of table.

TABLE 10.--WILDLIFE HABITAT--Continued

Soil name and map symbol	Potential for habitat elements							Potential as habitat for--		
	Grain and seed crops	Grasses and legumes	Wild herbaceous plants	Hardwood trees	Coniferous plants	Wetland plants	Shallow water areas	Openland wildlife	Woodland wildlife	Wetland wildlife
33*:										
Histosols.										
Aquents.										
34B Ontonagon	Good	Good	Fair	Good	Good	Good	Poor	Good	Good	Fair.
35A Rudyard	Fair	Good	Good	Good	Good	Good	Fair	Good	Good	Fair.
36A Skanee	Fair	Good	Good	Fair	Fair	Fair	Fair	Good	Fair	Fair.
37 Pickford	Poor	Good	Fair	Fair	Fair	Good	Good	Fair	Fair	Good.
38B Froberg	Good	Good	Good	Fair	Fair	Poor	Very poor.	Good	Fair	Very poor.
39B*:										
Munising	Fair	Good	Good	Fair	Fair	Poor	Poor	Good	Fair	Poor.
Skanee	Fair	Good	Good	Fair	Fair	Fair	Fair	Good	Fair	Fair.
43A Moquah	Poor	Fair	Fair	Good	Good	Poor	Poor	Fair	Good	Poor.
44B*, 44D*:										
Michigamme	Poor	Good	Fair	Fair	Fair	Very poor.	Very poor.	Fair	Fair	Very poor.
Rock outcrop.										
44E*, 44F*:										
Michigamme	Very poor.	Poor	Good	Fair	Fair	Very poor.	Very poor.	Poor	Fair	Very poor.
Rock outcrop.										
47B Yalmer	Fair	Fair	Fair	Good	Good	Poor	Very poor.	Fair	Good	Very poor.
48B Rousseau	Fair	Fair	Good	Good	Good	Poor	Very poor.	Fair	Good	Very poor.
49 Gay	Poor	Fair	Fair	Fair	Fair	Good	Good	Fair	Fair	Good.
50B Abbaye	Fair	Good	Good	Good	Good	Poor	Very poor.	Good	Good	Very poor.
50D Abbaye	Fair	Good	Good	Good	Good	Very poor.	Very poor.	Good	Good	Very poor.
51A Zeba	Fair	Good	Good	Fair	Fair	Fair	Fair	Good	Fair	Fair.
52 Gay Variant	Poor	Fair	Fair	Fair	Fair	Good	Fair	Poor	Fair	Fair.

See footnote at end of table.

TABLE 10.--WILDLIFE HABITAT--Continued

Soil name and map symbol	Potential for habitat elements							Potential as habitat for--		
	Grain and seed crops	Grasses and legumes	Wild herbaceous plants	Hardwood trees	Coniferous plants	Wetland plants	Shallow water areas	Openland wildlife	Woodland wildlife	Wetland wildlife
53B---------- Onota Variant	Very poor.	Poor	Poor	Very poor.	Very poor.	Poor	Very poor.	Poor	Very poor.	Very poor.
54B, 54D---------- Waiska	Very poor.	Poor	Poor	Good	Good	Very poor.	Very poor.	Very poor.	Good	Very poor.
56A---------- Deerton Variant	Poor	Poor	Poor	Poor	Poor	Poor	Poor	Poor	Poor	Poor.
57A*:										
Assinins----------	Poor	Poor	Good	Fair	Fair	Poor	Fair	Fair	Fair	Very poor.
Skanee----------	Fair	Good	Good	Fair	Fair	Fair	Fair	Good	Fair	Fair.
59B---------- Amasa	Poor	Fair	Good	Good	Good	Poor	Very poor.	Fair	Good	Very poor.
59D---------- Amasa	Poor	Fair	Good	Good	Good	Very poor.	Very poor.	Fair	Good	Very poor.
59E, 59F---------- Amasa	Very poor.	Fair	Good	Good	Good	Very poor.	Very poor.	Fair	Good	Very poor.
60B---------- Fence	Good	Good	Good	Good	Good	Poor	Very poor.	Good	Good	Very poor.
61B, 61D---------- Ishpeming	Poor	Fair	Fair	Poor	Poor	Very poor.	Very poor.	Fair	Poor	Very poor.
62*. Beaches										
64*. Pits										
65B---------- Ocqueoc	Fair	Fair	Good	Good	Good	Poor	Very poor.	Fair	Good	Very poor.
66B*:										
Champion----------	Poor	Fair	Good	Fair	Fair	Poor	Poor	Fair	Fair	Very poor.
Net----------	Poor	Fair	Fair	Fair	Fair	Fair	Fair	Fair	Fair	Fair.
67*:										
Witbeck----------	Very poor.	Poor	Fair	Fair	Fair	Good	Good	Poor	Fair	Good.
Tacoosh----------	Very poor.	Poor	Poor	Poor	Poor	Good	Good	Poor	Poor	Good.
68B---------- Amasa	Fair	Fair	Good	Fair	Fair	Poor	Very poor.	Fair	Fair	Very poor.
68D---------- Amasa	Fair	Fair	Good	Fair	Fair	Very poor.	Very poor.	Fair	Fair	Very poor.

See footnote at end of table.

TABLE 10.--WILDLIFE HABITAT--Continued

Soil name and map symbol	Potential for habitat elements							Potential as habitat for--		
	Grain and seed crops	Grasses and legumes	Wild herbaceous plants	Hardwood trees	Coniferous plants	Wetland plants	Shallow water areas	Openland wildlife	Woodland wildlife	Wetland wildlife
69E*, 69F*:										
Yalmer	Very poor.	Poor	Fair	Good	Good	Very poor.	Very poor.	Poor	Good	Very poor.
Munising	Very poor.	Poor	Good	Good	Good	Very poor.	Very poor.	Poor	Good	Very poor.
70 Winterfield	Poor	Fair	Good	Fair	Fair	Fair	Fair	Fair	Fair	Fair.
71A Pelkie	Poor	Fair	Good	Fair	Fair	Poor	Very poor.	Fair	Fair	Very poor.
72 Sturgeon	Fair	Good	Good	Good	Good	Fair	Fair	Good	Good	Fair.
73 Arnheim	Poor	Fair	Poor	Poor	Poor	Good	Fair	Poor	Poor	Fair.
74B Waiska Variant	Very poor.	Poor	Poor	Very poor.	Very poor.	Poor	Very poor.	Poor	Very poor.	Very poor.
75D Fence	Very poor.	Poor	Good	Good	Good	Very poor.	Very poor.	Poor	Good	Very poor.
76A Allendale	Poor	Poor	Good	Fair	Fair	Poor	Fair	Fair	Fair	Poor.
77A*:										
Udipsamments.										
Udorthents.										
78B*:										
Champion	Poor	Fair	Good	Fair	Fair	Poor	Poor	Fair	Fair	Very poor.
Michigamme	Poor	Good	Fair	Fair	Fair	Very poor.	Very poor.	Fair	Fair	Very poor.
78D*:										
Champion	Poor	Fair	Good	Fair	Fair	Very poor.	Very poor.	Fair	Fair	Very poor.
Michigamme	Poor	Good	Fair	Fair	Fair	Very poor.	Very poor.	Fair	Fair	Very poor.
78E*:										
Champion	Very poor.	Poor	Good	Fair	Fair	Very poor.	Very poor.	Poor	Fair	Very poor.
Michigamme	Very poor.	Poor	Good	Fair	Fair	Very poor.	Very poor.	Poor	Fair	Very poor.
79B Nunica	Good	Good	Good	Good	Good	Poor	Very poor.	Good	Good	Very poor.
79D Nunica	Fair	Good	Good	Good	Good	Very poor.	Very poor.	Good	Good	Very poor.

See footnote at end of table.

TABLE 10.--WILDLIFE HABITAT--Continued

Soil name and map symbol	Potential for habitat elements							Potential as habitat for--		
	Grain and seed crops	Grasses and legumes	Wild herbaceous plants	Hardwood trees	Coniferous plants	Wetland plants	Shallow water areas	Openland wildlife	Woodland wildlife	Wetland wildlife
80A Bowers	Fair	Good	Good	Fair	Fair	Good	Fair	Good	Fair	Fair.
81A Burt Variant	Very poor.	Poor	Poor	Very poor.	Very poor.	Poor	Very poor.	Poor	Very poor.	Very poor.
82 Roscommon Variant	Poor	Fair	Fair	Fair	Fair	Good	Poor	Fair	Fair	Poor.
83E*:										
Nunica	Very poor.	Fair	Good	Good	Good	Very poor.	Very poor.	Fair	Good	Very poor.
Ontonagon	Poor	Fair	Poor	Good	Good	Very poor.	Very poor.	Poor	Fair	Very poor.
84A Channing	Fair	Good	Good	Fair	Fair	Fair	Fair	Good	Fair	Fair.
86A*:										
Net	Poor	Fair	Fair	Fair	Fair	Fair	Fair	Fair	Fair	Fair.
Witbeck	Very poor.	Poor	Fair	Fair	Fair	Good	Good	Poor	Fair	Good.
87A*:										
Skanee	Fair	Good	Good	Fair	Fair	Fair	Fair	Good	Fair	Fair.
Gay	Poor	Fair	Fair	Fair	Fair	Good	Good	Fair	Fair	Good.
88B*:										
Munising	Fair	Good	Good	Fair	Fair	Poor	Poor	Good	Fair	Poor.
Yalmer	Fair	Fair	Fair	Good	Good	Poor	Very poor.	Fair	Good	Very poor.
88D*:										
Munising	Poor	Fair	Good	Good	Good	Very poor.	Very poor.	Fair	Good	Very poor.
Yalmer	Poor	Fair	Fair	Good	Good	Very poor.	Very poor.	Fair	Good	Very poor.
88E*:										
Yalmer	Very poor.	Poor	Fair	Good	Good	Very poor.	Very poor.	Poor	Good	Very poor.
Munising	Very poor.	Poor	Good	Good	Good	Very poor.	Very poor.	Poor	Good	Very poor.
91B*:										
Keweenaw	Fair	Fair	Good	Good	Good	Poor	Very poor.	Fair	Good	Very poor.
Kalkaska	Poor	Poor	Fair	Good	Good	Very poor.	Very poor.	Poor	Fair	Very poor.
91D*:										
Keweenaw	Fair	Fair	Good	Good	Good	Very poor.	Very poor.	Fair	Good	Very poor.

See footnote at end of table.

TABLE 10.--WILDLIFE HABITAT--Continued

Soil name and map symbol	Potential for habitat elements							Potential as habitat for--		
	Grain and seed crops	Grasses and legumes	Wild herbaceous plants	Hardwood trees	Coniferous plants	Wetland plants	Shallow water areas	Openland wildlife	Woodland wildlife	Wetland wildlife
91D*:										
Kalkaska	Poor	Poor	Fair	Good	Good	Very poor.	Very poor.	Poor	Fair	Very poor.
91E*:										
Keweenaw	Very poor.	Fair	Good	Good	Good	Very poor.	Very poor.	Poor	Good	Very poor.
Kalkaska	Very poor.	Poor	Fair	Good	Good	Very poor.	Very poor.	Poor	Fair	Very poor.
92B*:										
Keweenaw	Fair	Fair	Good	Good	Good	Poor	Very poor.	Fair	Good	Very poor.
Kalkaska	Poor	Poor	Fair	Good	Good	Very poor.	Very poor.	Poor	Fair	Very poor.
92D*:										
Keweenaw	Fair	Fair	Good	Good	Good	Very poor.	Very poor.	Fair	Good	Very poor.
Kalkaska	Poor	Poor	Fair	Good	Good	Very poor.	Very poor.	Poor	Fair	Very poor.
92E*:										
Keweenaw	Very poor.	Fair	Good	Good	Good	Very poor.	Very poor.	Poor	Good	Very poor.
Kalkaska	Very poor.	Poor	Fair	Good	Good	Very poor.	Very poor.	Poor	Fair	Very poor.
93B*:										
Deerton	Poor	Poor	Fair	Good	Good	Very poor.	Very poor.	Poor	Good	Very poor.
Abbaye	Fair	Good	Good	Good	Good	Poor	Very poor.	Good	Good	Very poor.
93D*:										
Deerton	Very poor.	Poor	Fair	Good	Good	Very poor.	Very poor.	Poor	Good	Very poor.
Abbaye	Poor	Fair	Good	Good	Good	Very poor.	Very poor.	Fair	Good	Very poor.
94B Deerton	Poor	Poor	Fair	Good	Good	Very poor.	Very poor.	Poor	Good	Very poor.
95B Amasa	Fair	Good	Good	Good	Good	Poor	Very poor.	Good	Good	Very poor.
95D Amasa	Fair	Good	Good	Good	Good	Very poor.	Very poor.	Good	Good	Very poor.
96A Richter Variant	Fair	Good	Poor	Good	Good	Fair	Fair	Fair	Good	Fair.
98A*:										
Burt Variant	Very poor.	Poor	Poor	Very poor.	Very poor.	Poor	Very poor.	Poor	Very poor.	Very poor.

See footnote at end of table.

TABLE 10.--WILDLIFE HABITAT--Continued

Soil name and map symbol	Potential for habitat elements							Potential as habitat for--		
	Grain and seed crops	Grasses and legumes	Wild herbaceous plants	Hardwood trees	Coniferous plants	Wetland plants	Shallow water areas	Openland wildlife	Woodland wildlife	Wetland wildlife
98A*:										
Burt	Very poor.	Poor	Poor	Very poor.	Very poor.	Fair	Poor	Very poor.	Very poor.	Poor.
99B*:										
Rubicon	Poor	Poor	Fair	Fair	Fair	Poor	Very poor.	Poor	Fair	Very poor.
Rousseau	Fair	Fair	Good	Good	Good	Poor	Very poor.	Fair	Good	Very poor.
Ocqueoc	Fair	Fair	Good	Good	Good	Poor	Very poor.	Fair	Good	Very poor.
99D*:										
Rubicon	Poor	Poor	Fair	Fair	Fair	Very poor.	Very poor.	Poor	Fair	Very poor.
Rousseau	Fair	Fair	Good	Good	Good	Very poor.	Very poor.	Fair	Good	Very poor.
Ocqueoc	Fair	Fair	Good	Good	Good	Very poor.	Very poor.	Fair	Good	Very poor.
100B Amasa	Poor	Fair	Good	Good	Good	Poor	Very poor.	Fair	Good	Very poor.
100D Amasa	Poor	Fair	Good	Good	Good	Very poor.	Very poor.	Fair	Good	Very poor.
100E Amasa	Very poor.	Fair	Good	Good	Good	Very poor.	Very poor.	Fair	Good	Very poor.
101E*, 101F*:										
Peshekee	Very poor.	Poor	Fair	Fair	Fair	Very poor.	Very poor.	Poor	Fair	Very poor.
Rock outcrop.										
102A Channing	Very poor.	Fair	Fair	Fair	Fair	Fair	Fair	Fair	Fair	Fair.
105*:										
Pits.										
Dumps.										
106B Yalmer	Fair	Fair	Fair	Good	Good	Poor	Very poor.	Fair	Good	Very poor.
107F*:										
Rousseau	Very poor.	Poor	Good	Good	Good	Very poor.	Very poor.	Fair	Good	Very poor.
Ocqueoc	Very poor.	Very poor.	Good	Good	Good	Very poor.	Very poor.	Poor	Good	Very poor.
108B*:										
Champion	Poor	Fair	Good	Fair	Fair	Poor	Poor	Fair	Fair	Very poor.
Net	Poor	Fair	Fair	Fair	Fair	Fair	Fair	Fair	Fair	Fair.

See footnote at end of table.

TABLE 10.--WILDLIFE HABITAT--Continued

Soil name and map symbol	Potential for habitat elements							Potential as habitat for--		
	Grain and seed crops	Grasses and legumes	Wild herbaceous plants	Hardwood trees	Coniferous plants	Wetland plants	Shallow water areas	Openland wildlife	Woodland wildlife	Wetland wildlife
108B*:										
Michigamme	Poor	Good	Fair	Fair	Fair	Very poor.	Very poor.	Fair	Fair	Very poor.
109F*:										
Rousseau	Very poor.	Poor	Good	Good	Good	Very poor.	Very poor.	Fair	Good	Very poor.
Fence	Very poor.	Poor	Good	Good	Good	Very poor.	Very poor.	Poor	Good	Very poor.
Ocqueoc	Very poor.	Very poor.	Good	Good	Good	Very poor.	Very poor.	Poor	Good	Very poor.
110E*:										
Ishpeming	Very poor.	Poor	Fair	Poor	Poor	Very poor.	Very poor.	Poor	Poor	Very poor.
Rock outcrop.										
111B*:										
Yalmer	Fair	Fair	Fair	Good	Good	Poor	Very poor.	Fair	Good	Very poor.
Assinins	Poor	Poor	Good	Fair	Fair	Poor	Fair	Fair	Fair	Very poor.
112A Assinins	Poor	Poor	Good	Fair	Fair	Poor	Fair	Fair	Fair	Very poor.
113B Petticoat	Poor	Fair	Good	Good	Good	Poor	Very poor.	Fair	Good	Very poor.
113D Petticoat	Poor	Fair	Good	Good	Good	Very poor.	Very poor.	Fair	Good	Very poor.
114B Peshekee Variant	Very poor.	Poor	Poor	Very poor.	Very poor.	Poor	Very poor.	Poor	Very poor.	Very poor.
114E Peshekee Variant	Very poor.	Poor	Poor	Very poor.	Very poor.	Very poor.	Very poor.	Poor	Very poor.	Very poor.
115D*:										
Munising	Fair	Good	Good	Fair	Fair	Very poor.	Very poor.	Good	Fair	Very poor.
Michigamme	Poor	Good	Fair	Fair	Fair	Very poor.	Very poor.	Fair	Fair	Very poor.
115E*:										
Munising	Very poor.	Poor	Good	Good	Good	Very poor.	Very poor.	Poor	Good	Very poor.
Michigamme	Very poor.	Poor	Good	Fair	Fair	Very poor.	Very poor.	Poor	Fair	Very poor.
116F*:										
Udorthents.										
Udipsamments.										

* See description of the map unit for composition and behavior characteristics of the map unit.

TABLE 11.--BUILDING SITE DEVELOPMENT

(Some terms that describe restrictive soil features are defined in the Glossary. See text for definitions of "slight," "moderate," and "severe." Absence of an entry indicates that the soil was not rated. The information in this table indicates the dominant soil condition but does not eliminate the need for onsite investigation)

Soil name and map symbol	Shallow excavations	Dwellings without basements	Dwellings with basements	Small commercial buildings	Local roads and streets	Lawns and landscaping
10B---------- Watton	Moderate: dense layer.	Moderate: shrink-swell.	Moderate: shrink-swell.	Moderate: shrink-swell, slope.	Severe: low strength.	Moderate: large stones.
10D---------- Watton	Moderate: dense layer, slope.	Moderate: shrink-swell, slope.	Moderate: slope, shrink-swell.	Severe: slope.	Severe: low strength.	Moderate: large stones, slope.
11A---------- Alstad	Severe: wetness.	Severe: wetness.	Severe: wetness.	Severe: wetness.	Severe: frost action.	Moderate: wetness.
12---------- Alstad Variant	Severe: ponding.	Severe: ponding.	Severe: ponding.	Severe: ponding.	Severe: low strength, ponding, frost action.	Severe: ponding.
13B---------- Grayling	Severe: cutbanks cave.	Slight---------	Slight---------	Slight---------	Slight---------	Severe: droughty.
13D---------- Grayling	Severe: cutbanks cave.	Moderate: slope.	Moderate: slope.	Severe: slope.	Moderate: slope.	Severe: droughty.
14B---------- Rubicon	Severe: cutbanks cave.	Slight---------	Slight---------	Moderate: slope.	Slight---------	Severe: droughty.
14D---------- Rubicon	Severe: cutbanks cave.	Moderate: slope.	Moderate: slope.	Severe: slope.	Moderate: slope.	Severe: droughty.
14E, 14F---------- Rubicon	Severe: cutbanks cave, slope.	Severe: slope.	Severe: slope.	Severe: slope.	Severe: slope.	Severe: droughty, slope.
15B---------- Champion	Severe: cutbanks cave, wetness.	Severe: wetness.	Severe: wetness.	Severe: wetness.	Moderate: wetness, frost action.	Severe: large stones.
15D---------- Champion	Severe: cutbanks cave, wetness.	Severe: wetness.	Severe: wetness.	Severe: wetness, slope.	Moderate: wetness, slope, frost action.	Severe: large stones.
15E---------- Champion	Severe: cutbanks cave, slope.	Severe: slope.	Severe: slope.	Severe: slope.	Severe: slope.	Severe: large stones, slope.
16A---------- Croswell	Severe: cutbanks cave, wetness.	Moderate: wetness.	Severe: wetness.	Moderate: wetness.	Moderate: wetness.	Moderate: droughty, too sandy.
17A---------- Au Gres	Severe: cutbanks cave, wetness.	Severe: wetness.	Severe: wetness.	Severe: wetness.	Severe: wetness.	Severe: wetness.
18---------- Kinross	Severe: cutbanks cave, ponding.	Severe: ponding.	Severe: ponding.	Severe: ponding.	Severe: ponding.	Severe: ponding, droughty.

TABLE 11.--BUILDING SITE DEVELOPMENT--Continued

Soil name and map symbol	Shallow excavations	Dwellings without basements	Dwellings with basements	Small commercial buildings	Local roads and streets	Lawns and landscaping
19*:						
Dawson	Severe: cutbanks cave, excess humus, ponding.	Severe: subsides, ponding, low strength.	Severe: subsides, ponding.	Severe: subsides, ponding, low strength.	Severe: subsides, ponding, frost action.	Severe: ponding, excess humus.
Greenwood	Severe: excess humus, ponding.	Severe: subsides, ponding, low strength.	Severe: subsides, ponding, low strength.	Severe: subsides, ponding, low strength.	Severe: ponding, frost action, subsides.	Severe: ponding, excess humus.
20*:						
Carbondale	Severe: excess humus, ponding.	Severe: subsides, ponding, low strength.	Severe: subsides, ponding, low strength.	Severe: subsides, ponding, low strength.	Severe: subsides, ponding, frost action.	Severe: ponding, excess humus.
Tacoosh	Severe: excess humus, ponding.	Severe: subsides, ponding, low strength.	Severe: subsides, ponding.	Severe: subsides, ponding, low strength.	Severe: ponding, frost action, subsides.	Severe: ponding, excess humus.
21B Allouez	Severe: cutbanks cave.	Moderate: large stones.	Moderate: large stones.	Moderate: large stones.	Moderate: large stones.	Severe: droughty.
23B*:						
Munising	Severe: cutbanks cave, wetness.	Severe: wetness.	Severe: wetness.	Severe: wetness.	Moderate: wetness, frost action.	Moderate: wetness, droughty.
Yalmer	Severe: cutbanks cave, wetness.	Moderate: wetness.	Severe: wetness.	Moderate: wetness, slope.	Moderate: wetness.	Severe: droughty.
23D*:						
Munising	Severe: cutbanks cave, wetness.	Severe: wetness.	Severe: wetness.	Severe: wetness, slope.	Moderate: wetness, slope, frost action.	Moderate: wetness, droughty, slope.
Yalmer	Severe: cutbanks cave, wetness.	Moderate: wetness, slope.	Severe: wetness.	Severe: slope.	Moderate: wetness, slope.	Severe: droughty.
24B Munising	Severe: cutbanks cave, wetness.	Severe: wetness.	Severe: wetness.	Severe: wetness.	Moderate: wetness, frost action.	Moderate: wetness, droughty.
24D Munising	Severe: cutbanks cave, slope.	Severe: slope.	Severe: slope.	Severe: slope.	Severe: slope.	Severe: slope.
25A Net	Severe: cutbanks cave, wetness.	Severe: wetness.	Severe: wetness.	Severe: wetness.	Severe: wetness, frost action.	Severe: large stones, wetness, droughty.
26 Witbeck	Severe: ponding.	Severe: ponding.	Severe: ponding.	Severe: ponding.	Severe: ponding, frost action.	Severe: large stones, ponding, excess humus.

See footnote at end of table.

TABLE 11.--BUILDING SITE DEVELOPMENT--Continued

Soil name and map symbol	Shallow excavations	Dwellings without basements	Dwellings with basements	Small commercial buildings	Local roads and streets	Lawns and landscaping
27B---------- Munising	Severe: cutbanks cave, wetness.	Severe: wetness.	Severe: wetness.	Severe: wetness.	Moderate: wetness, frost action.	Moderate: wetness, droughty.
29D*:						
Grayling---------	Severe: cutbanks cave.	Moderate: slope.	Moderate: slope.	Severe: slope.	Moderate: slope.	Severe: droughty.
Kinross----------	Severe: cutbanks cave, ponding.	Severe: ponding.	Severe: ponding.	Severe: ponding.	Severe: ponding.	Severe: ponding, droughty.
30B---------- Kalkaska	Severe: cutbanks cave.	Slight---------	Slight---------	Moderate: slope.	Slight---------	Severe: droughty.
30D---------- Kalkaska	Severe: cutbanks cave.	Moderate: slope.	Moderate: slope.	Severe: slope.	Moderate: slope.	Severe: droughty.
30E, 30F---------- Kalkaska	Severe: cutbanks cave, slope.	Severe: slope.	Severe: slope.	Severe: slope.	Severe: slope.	Severe: droughty, slope.
31B---------- Kallio	Severe: wetness.	Severe: wetness.	Severe: wetness.	Severe: wetness.	Severe: wetness.	Severe: large stones, wetness.
31D---------- Kallio	Severe: wetness.	Severe: wetness.	Severe: wetness.	Severe: wetness, slope.	Severe: wetness.	Severe: large stones, wetness.
32A*:						
Kinross----------	Severe: cutbanks cave, ponding.	Severe: ponding.	Severe: ponding.	Severe: ponding.	Severe: ponding.	Severe: ponding, droughty.
Croswell---------	Severe: cutbanks cave, wetness.	Moderate: wetness.	Severe: wetness.	Moderate: wetness.	Moderate: wetness.	Moderate: droughty, too sandy.
33*:						
Histosols.						
Aquents.						
34B---------- Ontonagon	Moderate: too clayey.	Severe: shrink-swell.	Severe: shrink-swell.	Severe: shrink-swell.	Severe: low strength, shrink-swell.	Slight.
35A---------- Rudyard	Severe: wetness.	Severe: wetness, shrink-swell.	Severe: wetness, shrink-swell.	Severe: wetness, shrink-swell.	Severe: low strength, shrink-swell, wetness.	Severe: wetness.
36A---------- Skanee	Severe: cutbanks cave, wetness.	Severe: wetness.	Severe: wetness.	Severe: wetness.	Severe: wetness, frost action.	Severe: wetness.
37---------- Pickford	Severe: ponding.	Severe: ponding.	Severe: ponding.	Severe: ponding.	Severe: low strength, ponding.	Severe: ponding.

See footnote at end of table.

TABLE 11.--BUILDING SITE DEVELOPMENT--Continued

Soil name and map symbol	Shallow excavations	Dwellings without basements	Dwellings with basements	Small commercial buildings	Local roads and streets	Lawns and landscaping
38B---------- Froberg	Moderate: too clayey.	Moderate: shrink-swell.	Slight---------	Moderate: shrink-swell.	Severe: low strength.	Slight.
39B*:						
Munising---------	Severe: cutbanks cave, wetness.	Severe: wetness.	Severe: wetness.	Severe: wetness.	Moderate: wetness, frost action.	Moderate: wetness, droughty.
Skanee----------	Severe: cutbanks cave, wetness.	Severe: wetness.	Severe: wetness.	Severe: wetness.	Severe: wetness, frost action.	Severe: wetness.
43A---------- Moquah	Severe: cutbanks cave.	Severe: flooding.	Severe: flooding.	Severe: flooding.	Severe: flooding.	Moderate: flooding.
44B*:						
Michigamme-------	Severe: depth to rock, cutbanks cave, wetness.	Severe: wetness.	Severe: wetness, depth to rock.	Severe: wetness.	Moderate: depth to rock, wetness.	Severe: large stones.
Rock outcrop.						
44D*:						
Michigamme-------	Severe: depth to rock, cutbanks cave, wetness.	Severe: wetness.	Severe: wetness, depth to rock.	Severe: wetness, slope.	Moderate: depth to rock, wetness, slope.	Severe: large stones.
Rock outcrop.						
44E*, 44F*:						
Michigamme-------	Severe: depth to rock, cutbanks cave, slope.	Severe: slope.	Severe: depth to rock, slope.	Severe: slope.	Severe: slope.	Severe: large stones, slope.
Rock outcrop.						
47B---------- Yalmer	Severe: cutbanks cave, wetness.	Moderate: wetness.	Severe: wetness.	Moderate: wetness, slope.	Moderate: wetness.	Severe: droughty.
48B---------- Rousseau	Severe: cutbanks cave.	Slight---------	Slight---------	Moderate: slope.	Slight---------	Moderate: droughty.
49---------- Gay	Severe: ponding.	Severe: ponding.	Severe: ponding.	Severe: ponding.	Severe: ponding, frost action.	Severe: ponding.
50B---------- Abbaye	Severe: depth to rock, cutbanks cave.	Moderate: depth to rock.	Severe: depth to rock.	Moderate: slope, depth to rock.	Moderate: depth to rock, frost action.	Moderate: large stones, droughty.
50D---------- Abbaye	Severe: depth to rock, cutbanks cave.	Moderate: slope, depth to rock.	Severe: depth to rock.	Severe: slope.	Moderate: depth to rock, slope, frost action.	Moderate: large stones, droughty, slope.

See footnote at end of table.

TABLE 11.--BUILDING SITE DEVELOPMENT--Continued

Soil name and map symbol	Shallow excavations	Dwellings without basements	Dwellings with basements	Small commercial buildings	Local roads and streets	Lawns and landscaping
51A---------- Zeba	Severe: depth to rock, cutbanks cave, wetness.	Severe: wetness.	Severe: wetness, depth to rock.	Severe: wetness.	Severe: wetness, frost action.	Severe: wetness.
52---------- Gay Variant	Severe: depth to rock, cutbanks cave, ponding.	Severe: ponding.	Severe: ponding, depth to rock.	Severe: ponding.	Severe: ponding, frost action.	Severe: ponding.
53B---------- Onota Variant	Severe: depth to rock.	Severe: depth to rock.	Severe: depth to rock.	Severe: depth to rock.	Severe: depth to rock.	Severe: small stones, droughty, thin layer.
54B---------- Waiska	Severe: cutbanks cave.	Slight---------	Slight---------	Moderate: slope.	Slight---------	Severe: droughty.
54D---------- Waiska	Severe: cutbanks cave.	Moderate: slope.	Moderate: slope.	Severe: slope.	Moderate: slope.	Severe: droughty.
56A---------- Deerton Variant	Severe: depth to rock, cutbanks cave, wetness.	Severe: wetness.	Severe: wetness, depth to rock.	Severe: wetness.	Severe: wetness.	Severe: wetness.
57A*:						
Assinins---------	Severe: wetness.	Severe: wetness.	Severe: wetness.	Severe: wetness.	Severe: wetness, frost action.	Severe: wetness.
Skanee----------	Severe: cutbanks cave, wetness.	Severe: wetness.	Severe: wetness.	Severe: wetness.	Severe: wetness, frost action.	Severe: wetness.
59B---------- Amasa	Severe: cutbanks cave.	Moderate: large stones.	Moderate: large stones.	Moderate: slope, large stones.	Moderate: frost action, large stones.	Severe: large stones.
59D---------- Amasa	Severe: cutbanks cave.	Moderate: slope, large stones.	Moderate: slope, large stones.	Severe: slope.	Moderate: slope, frost action, large stones.	Severe: large stones.
59E, 59F---------- Amasa	Severe: cutbanks cave, slope.	Severe: slope.	Severe: slope.	Severe: slope.	Severe: slope.	Severe: large stones, slope.
60B---------- Fence	Severe: cutbanks cave.	Slight---------	Slight---------	Moderate: slope.	Severe: frost action.	Slight.
61B---------- Ishpeming	Severe: depth to rock, cutbanks cave.	Moderate: depth to rock.	Severe: depth to rock.	Moderate: slope, depth to rock.	Moderate: depth to rock.	Moderate: large stones, droughty.
61D---------- Ishpeming	Severe: depth to rock, cutbanks cave.	Moderate: slope, depth to rock.	Severe: depth to rock.	Severe: slope.	Moderate: depth to rock, slope.	Moderate: large stones, droughty.
62*. Beaches						
64*. Pits						

See footnote at end of table.

TABLE 11.--BUILDING SITE DEVELOPMENT--Continued

Soil name and map symbol	Shallow excavations	Dwellings without basements	Dwellings with basements	Small commercial buildings	Local roads and streets	Lawns and landscaping
65B---------- Ocqueoc	Severe: cutbanks cave.	Slight---------	Moderate: shrink-swell.	Moderate: slope.	Slight---------	Moderate: droughty.
66B*:						
Champion---------	Severe: cutbanks cave, wetness.	Severe: wetness.	Severe: wetness.	Severe: wetness.	Moderate: wetness, frost action.	Severe: large stones.
Net----------	Severe: cutbanks cave, wetness.	Severe: wetness.	Severe: wetness.	Severe: wetness.	Severe: wetness, frost action.	Severe: large stones, wetness, droughty.
67*:						
Witbeck----------	Severe: ponding.	Severe: ponding.	Severe: ponding.	Severe: ponding.	Severe: ponding, frost action.	Severe: large stones, ponding, excess humus.
Tacoosh----------	Severe: excess humus, ponding.	Severe: subsides, ponding, low strength.	Severe: subsides, ponding.	Severe: subsides, ponding, low strength.	Severe: ponding, frost action, subsides.	Severe: ponding, excess humus.
68B---------- Amasa	Severe: cutbanks cave.	Slight---------	Slight---------	Moderate: slope.	Moderate: frost action.	Moderate: large stones.
68D---------- Amasa	Severe: cutbanks cave.	Moderate: slope.	Moderate: slope.	Severe: slope.	Moderate: slope, frost action.	Moderate: large stones, slope.
69E*, 69F*:						
Yalmer----------	Severe: cutbanks cave, slope.	Severe: slope.	Severe: slope.	Severe: slope.	Severe: slope.	Severe: droughty, slope.
Munising---------	Severe: cutbanks cave, slope.	Severe: slope.	Severe: slope.	Severe: slope.	Severe: slope.	Severe: slope.
70---------- Winterfield	Severe: cutbanks cave, wetness.	Severe: flooding, wetness.	Severe: flooding, wetness.	Severe: flooding, wetness.	Severe: wetness, flooding.	Severe: wetness.
71A---------- Pelkie	Severe: cutbanks cave.	Severe: flooding.	Severe: flooding.	Severe: flooding.	Severe: flooding.	Moderate: droughty, flooding.
72---------- Sturgeon	Severe: cutbanks cave, wetness.	Severe: flooding, wetness.	Severe: flooding, wetness.	Severe: flooding, wetness.	Severe: wetness, flooding, frost action.	Severe: wetness.
73---------- Arnheim	Severe: cutbanks cave, wetness.	Severe: flooding, wetness.	Severe: flooding, wetness.	Severe: flooding, wetness.	Severe: wetness, flooding, frost action.	Severe: wetness.
74B---------- Waiska Variant	Severe: cutbanks cave.	Slight---------	Slight---------	Slight---------	Slight---------	Severe: small stones, droughty.

See footnote at end of table.

TABLE 11.--BUILDING SITE DEVELOPMENT--Continued

Soil name and map symbol	Shallow excavations	Dwellings without basements	Dwellings with basements	Small commercial buildings	Local roads and streets	Lawns and landscaping
75D---------- Fence	Severe: cutbanks cave, slope.	Severe: slope.	Severe: slope.	Severe: slope.	Severe: slope, frost action.	Severe: slope.
76A---------- Allendale	Severe: cutbanks cave, wetness.	Severe: wetness.	Severe: wetness.	Severe: wetness.	Moderate: wetness, frost action.	Moderate: wetness, droughty.
77A*:						
Udipsamments.						
Udorthents.						
78B*:						
Champion---------	Severe: cutbanks cave, wetness.	Severe: wetness.	Severe: wetness.	Severe: wetness.	Moderate: wetness, frost action.	Severe: large stones.
Michigamme-------	Severe: depth to rock, cutbanks cave, wetness.	Severe: wetness.	Severe: wetness, depth to rock.	Severe: wetness.	Moderate: depth to rock, wetness.	Severe: large stones.
78D*:						
Champion---------	Severe: cutbanks cave, wetness.	Severe: wetness.	Severe: wetness.	Severe: wetness, slope.	Moderate: wetness, slope, frost action.	Severe: large stones.
Michigamme-------	Severe: depth to rock, cutbanks cave, wetness.	Severe: wetness.	Severe: wetness, depth to rock.	Severe: wetness, slope.	Moderate: depth to rock, wetness, slope.	Severe: large stones.
78E*:						
Champion---------	Severe: cutbanks cave, slope.	Severe: slope.	Severe: slope.	Severe: slope.	Severe: slope.	Severe: large stones, slope.
Michigamme-------	Severe: depth to rock, cutbanks cave, slope.	Severe: slope.	Severe: depth to rock, slope.	Severe: slope.	Severe: slope.	Severe: large stones, slope.
79B---------- Nunica	Slight---------	Slight---------	Slight---------	Slight---------	Severe: low strength.	Slight.
79D---------- Nunica	Moderate: slope.	Moderate: slope.	Moderate: slope.	Severe: slope.	Severe: low strength.	Moderate: slope.
80A---------- Bowers	Severe: wetness.	Severe: wetness.	Severe: wetness.	Severe: wetness.	Severe: low strength, frost action.	Moderate: wetness.
81A---------- Burt Variant	Severe: depth to rock, wetness.	Severe: wetness, depth to rock.	Severe: wetness, depth to rock.	Severe: wetness, depth to rock.	Severe: depth to rock, wetness.	Severe: small stones, wetness, droughty.

See footnote at end of table.

TABLE 11.--BUILDING SITE DEVELOPMENT--Continued

Soil name and map symbol	Shallow excavations	Dwellings without basements	Dwellings with basements	Small commercial buildings	Local roads and streets	Lawns and landscaping
82---------- Roscommon Variant	Severe: depth to rock, cutbanks cave, ponding.	Severe: ponding.	Severe: ponding, depth to rock.	Severe: ponding.	Severe: ponding.	Severe: ponding.
83E*:						
Nunica----------	Severe: slope.	Severe: slope.	Severe: slope.	Severe: slope.	Severe: low strength, slope.	Severe: slope.
Ontonagon--------	Severe: slope.	Severe: shrink-swell, slope.	Severe: slope, shrink-swell.	Severe: shrink-swell, slope.	Severe: low strength, slope, shrink-swell.	Severe: slope.
84A---------- Channing	Severe: cutbanks cave, wetness.	Severe: wetness.	Severe: wetness.	Severe: wetness.	Severe: wetness, frost action.	Severe: wetness.
86A*:						
Net----------	Severe: cutbanks cave, wetness.	Severe: wetness.	Severe: wetness.	Severe: wetness.	Severe: wetness, frost action.	Severe: large stones, wetness, droughty.
Witbeck----------	Severe: ponding.	Severe: ponding.	Severe: ponding.	Severe: ponding.	Severe: ponding, frost action.	Severe: large stones, ponding, excess humus.
87A*:						
Skanee----------	Severe: cutbanks cave, wetness.	Severe: wetness.	Severe: wetness.	Severe: wetness.	Severe: wetness, frost action.	Severe: wetness.
Gay----------	Severe: ponding.	Severe: ponding.	Severe: ponding.	Severe: ponding.	Severe: ponding, frost action.	Severe: ponding.
88B*:						
Munising---------	Severe: cutbanks cave, wetness.	Severe: wetness.	Severe: wetness.	Severe: wetness.	Moderate: wetness, frost action.	Moderate: wetness, droughty.
Yalmer----------	Severe: cutbanks cave, wetness.	Moderate: wetness.	Severe: wetness.	Moderate: wetness, slope.	Moderate: wetness.	Severe: droughty.
88D*:						
Munising---------	Severe: cutbanks cave, slope.	Severe: slope.	Severe: slope.	Severe: slope.	Severe: slope.	Severe: slope.
Yalmer----------	Severe: cutbanks cave, slope.	Severe: slope.	Severe: slope.	Severe: slope.	Severe: slope.	Severe: droughty, slope.
88E*:						
Yalmer----------	Severe: cutbanks cave, slope.	Severe: slope.	Severe: slope.	Severe: slope.	Severe: slope.	Severe: droughty, slope.

See footnote at end of table.

TABLE 11.--BUILDING SITE DEVELOPMENT--Continued

Soil name and map symbol	Shallow excavations	Dwellings without basements	Dwellings with basements	Small commercial buildings	Local roads and streets	Lawns and landscaping
88E*:						
Munising	Severe: cutbanks cave, slope.	Severe: slope.	Severe: slope.	Severe: slope.	Severe: slope.	Severe: slope.
91B*:						
Keweenaw	Severe: cutbanks cave.	Slight	Slight	Moderate: slope.	Slight	Moderate: large stones.
Kalkaska	Severe: cutbanks cave.	Slight	Slight	Moderate: slope.	Slight	Severe: droughty.
91D*:						
Keweenaw	Severe: cutbanks cave.	Moderate: slope.	Moderate: slope.	Severe: slope.	Moderate: slope.	Moderate: large stones, slope.
Kalkaska	Severe: cutbanks cave.	Moderate: slope.	Moderate: slope.	Severe: slope.	Moderate: slope.	Severe: droughty.
91E*:						
Keweenaw	Severe: cutbanks cave, slope.	Severe: slope.	Severe: slope.	Severe: slope.	Severe: slope.	Severe: slope.
Kalkaska	Severe: cutbanks cave, slope.	Severe: slope.	Severe: slope.	Severe: slope.	Severe: slope.	Severe: droughty, slope.
92B*:						
Keweenaw	Severe: cutbanks cave.	Slight	Slight	Moderate: slope.	Slight	Moderate: large stones.
Kalkaska	Severe: cutbanks cave.	Slight	Slight	Moderate: slope.	Slight	Severe: droughty.
92D*:						
Keweenaw	Severe: cutbanks cave.	Moderate: slope.	Moderate: slope.	Severe: slope.	Moderate: slope.	Moderate: large stones, slope.
Kalkaska	Severe: cutbanks cave.	Moderate: slope.	Moderate: slope.	Severe: slope.	Moderate: slope.	Severe: droughty.
92E*:						
Keweenaw	Severe: cutbanks cave, slope.	Severe: slope.	Severe: slope.	Severe: slope.	Severe: slope.	Severe: slope.
Kalkaska	Severe: cutbanks cave, slope.	Severe: slope.	Severe: slope.	Severe: slope.	Severe: slope.	Severe: droughty, slope.
93B*:						
Deerton	Severe: cutbanks cave.	Slight	Slight	Moderate: slope.	Slight	Moderate: droughty, thin layer.
Abbaye	Severe: depth to rock, cutbanks cave.	Moderate: depth to rock.	Severe: depth to rock.	Moderate: slope, depth to rock.	Moderate: depth to rock, frost action.	Moderate: large stones, droughty.

See footnote at end of table.

TABLE 11.--BUILDING SITE DEVELOPMENT--Continued

Soil name and map symbol	Shallow excavations	Dwellings without basements	Dwellings with basements	Small commercial buildings	Local roads and streets	Lawns and landscaping
93D*:						
Deerton	Severe: cutbanks cave, slope.	Severe: slope.	Severe: slope.	Severe: slope.	Severe: slope.	Severe: slope.
Abbaye	Severe: depth to rock, cutbanks cave, slope.	Severe: slope.	Severe: depth to rock, slope.	Severe: slope.	Severe: slope.	Severe: slope.
94B Deerton	Severe: cutbanks cave.	Slight	Slight	Moderate: slope.	Slight	Moderate: droughty, thin layer.
95B Amasa	Severe: cutbanks cave.	Slight	Slight	Moderate: slope.	Moderate: frost action.	Slight.
95D Amasa	Severe: cutbanks cave.	Moderate: slope.	Moderate: slope.	Severe: slope.	Moderate: slope, frost action.	Moderate: slope.
96A Richter Variant	Severe: cutbanks cave, wetness.	Severe: wetness.	Severe: wetness.	Severe: wetness.	Severe: wetness, frost action.	Severe: wetness.
98A*:						
Burt Variant	Severe: depth to rock, wetness.	Severe: wetness, depth to rock.	Severe: wetness, depth to rock.	Severe: wetness, depth to rock.	Severe: depth to rock, wetness.	Severe: small stones, wetness, droughty.
Burt	Severe: depth to rock, ponding.	Severe: ponding, depth to rock.	Severe: ponding, depth to rock.	Severe: ponding, depth to rock.	Severe: depth to rock, ponding.	Severe: ponding, thin layer, area reclaim.
99B*:						
Rubicon	Severe: cutbanks cave.	Slight	Slight	Moderate: slope.	Slight	Severe: droughty.
Rousseau	Severe: cutbanks cave.	Slight	Slight	Moderate: slope.	Slight	Moderate: droughty.
Ocqueoc	Severe: cutbanks cave.	Slight	Moderate: shrink-swell.	Moderate: slope.	Slight	Moderate: droughty.
99D*:						
Rubicon	Severe: cutbanks cave.	Moderate: slope.	Moderate: slope.	Severe: slope.	Moderate: slope.	Severe: droughty.
Rousseau	Severe: cutbanks cave.	Moderate: slope.	Moderate: slope.	Severe: slope.	Moderate: slope.	Moderate: droughty, slope.
Ocqueoc	Severe: cutbanks cave.	Moderate: slope.	Moderate: slope, shrink-swell.	Severe: slope.	Moderate: slope.	Moderate: droughty, slope.
100B Amasa	Severe: cutbanks cave.	Moderate: large stones.	Moderate: large stones.	Moderate: slope, large stones.	Moderate: frost action, large stones.	Severe: large stones.

See footnote at end of table.

TABLE 11.--BUILDING SITE DEVELOPMENT--Continued

Soil name and map symbol	Shallow excavations	Dwellings without basements	Dwellings with basements	Small commercial buildings	Local roads and streets	Lawns and landscaping
100D---------- Amasa	Severe: cutbanks cave.	Moderate: slope, large stones.	Moderate: slope, large stones.	Severe: slope.	Moderate: slope, frost action, large stones.	Severe: large stones.
100E---------- Amasa	Severe: cutbanks cave, slope.	Severe: slope.	Severe: slope.	Severe: slope.	Severe: slope.	Severe: large stones, slope.
101E*, 101F*:						
Peshekee---------	Severe: depth to rock, slope.	Severe: slope, depth to rock.	Severe: depth to rock, slope.	Severe: slope, depth to rock.	Severe: depth to rock, slope.	Severe: large stones, slope, thin layer.
Rock outcrop.						
102A---------- Channing	Severe: cutbanks cave, wetness.	Severe: wetness.	Severe: wetness.	Severe: wetness.	Severe: wetness, frost action.	Severe: large stones, wetness.
105*:						
Pits.						
Dumps.						
106B---------- Yalmer	Severe: cutbanks cave, wetness.	Moderate: wetness.	Severe: wetness.	Moderate: wetness, slope.	Moderate: wetness.	Severe: droughty.
107F*:						
Rousseau---------	Severe: cutbanks cave, slope.	Severe: slope.	Severe: slope.	Severe: slope.	Severe: slope.	Severe: slope.
Ocqueoc----------	Severe: cutbanks cave, slope.	Severe: slope.	Severe: slope.	Severe: slope.	Severe: slope.	Severe: slope.
108B*:						
Champion---------	Severe: cutbanks cave, wetness.	Severe: wetness.	Severe: wetness.	Severe: wetness.	Moderate: wetness, frost action.	Severe: large stones.
Net----------	Severe: cutbanks cave, wetness.	Severe: wetness.	Severe: wetness.	Severe: wetness.	Severe: wetness, frost action.	Severe: large stones, wetness, droughty.
Michigamme-------	Severe: depth to rock, cutbanks cave, wetness.	Severe: wetness.	Severe: wetness, depth to rock.	Severe: wetness.	Moderate: depth to rock, wetness.	Severe: large stones.
109F*:						
Rousseau---------	Severe: cutbanks cave, slope.	Severe: slope.	Severe: slope.	Severe: slope.	Severe: slope.	Severe: slope.

See footnote at end of table.

TABLE 11.--BUILDING SITE DEVELOPMENT--Continued

Soil name and map symbol	Shallow excavations	Dwellings without basements	Dwellings with basements	Small commercial buildings	Local roads and streets	Lawns and landscaping
109F*:						
Fence	Severe: cutbanks cave, slope.	Severe: slope.	Severe: slope.	Severe: slope.	Severe: slope, frost action.	Severe: slope.
Ocqueoc	Severe: cutbanks cave, slope.	Severe: slope.	Severe: slope.	Severe: slope.	Severe: slope.	Severe: slope.
110E*:						
Ishpeming	Severe: depth to rock, cutbanks cave, slope.	Severe: slope.	Severe: depth to rock, slope.	Severe: slope.	Severe: slope.	Severe: slope.
Rock outcrop.						
111B*:						
Yalmer	Severe: cutbanks cave, wetness.	Moderate: wetness.	Severe: wetness.	Moderate: wetness, slope.	Moderate: wetness.	Severe: droughty.
Assinins	Severe: wetness.	Severe: wetness.	Severe: wetness.	Severe: wetness.	Severe: wetness, frost action.	Severe: wetness.
112A Assinins	Severe: wetness.	Severe: wetness.	Severe: wetness.	Severe: wetness.	Severe: wetness, frost action.	Severe: wetness.
113B Petticoat	Severe: cutbanks cave.	Moderate: large stones.	Moderate: large stones.	Moderate: slope, large stones.	Moderate: frost action, large stones.	Severe: large stones.
113D Petticoat	Severe: cutbanks cave.	Moderate: slope, large stones.	Moderate: slope, large stones.	Severe: slope.	Moderate: slope, frost action, large stones.	Severe: large stones.
114B Peshekee Variant	Severe: depth to rock, large stones.	Severe: depth to rock, large stones.	Severe: depth to rock, large stones.	Severe: depth to rock, large stones.	Severe: depth to rock, large stones.	Severe: large stones, thin layer.
114E Peshekee Variant	Severe: depth to rock, large stones, slope.	Severe: slope, depth to rock, large stones.	Severe: depth to rock, slope, large stones.	Severe: slope, depth to rock, large stones.	Severe: depth to rock, slope, large stones.	Severe: large stones, slope, thin layer.
115D*:						
Munising	Severe: cutbanks cave, wetness.	Severe: wetness.	Severe: wetness.	Severe: wetness, slope.	Moderate: wetness, slope, frost action.	Moderate: wetness, droughty, slope.
Michigamme	Severe: depth to rock, cutbanks cave, wetness.	Severe: wetness.	Severe: wetness, depth to rock.	Severe: wetness, slope.	Moderate: depth to rock, wetness, slope.	Severe: large stones.

See footnote at end of table.

TABLE 11.--BUILDING SITE DEVELOPMENT--Continued

Soil name and map symbol	Shallow excavations	Dwellings without basements	Dwellings with basements	Small commercial buildings	Local roads and streets	Lawns and landscaping
115E*:						
Munising	Severe: cutbanks cave, slope.	Severe: slope.	Severe: slope.	Severe: slope.	Severe: slope.	Severe: slope.
Michigamme	Severe: depth to rock, cutbanks cave, slope.	Severe: slope.	Severe: depth to rock, slope.	Severe: slope.	Severe: slope.	Severe: large stones, slope.
116F*:						
Udorthents.						
Udipsamments.						

* See description of the map unit for composition and behavior characteristics of the map unit.

TABLE 12.--SANITARY FACILITIES

(Some terms that describe restrictive soil features are defined in the Glossary. See text for definitions of "slight," "good," and other terms. Absence of an entry indicates that the soil was not rated. The information in this table indicates the dominant soil condition but does not eliminate the need for onsite investigation)

Soil name and map symbol	Septic tank absorption fields	Sewage lagoon areas	Trench sanitary landfill	Area sanitary landfill	Daily cover for landfill
10B---------- Watton	Severe: percs slowly.	Moderate: seepage, slope.	Moderate: too clayey.	Slight----------	Fair: too clayey.
10D---------- Watton	Severe: percs slowly.	Severe: slope.	Moderate: slope, too clayey.	Moderate: slope.	Fair: too clayey, slope.
11A---------- Alstad	Severe: wetness, percs slowly.	Severe: wetness.	Severe: wetness.	Severe: wetness.	Poor: wetness.
12---------- Alstad Variant	Severe: ponding, percs slowly.	Severe: ponding.	Severe: ponding.	Severe: ponding.	Poor: ponding.
13B---------- Grayling	Severe: poor filter.	Severe: seepage.	Severe: seepage, too sandy.	Severe: seepage.	Poor: seepage, too sandy.
13D---------- Grayling	Severe: poor filter.	Severe: seepage, slope.	Severe: seepage, too sandy.	Severe: seepage.	Poor: seepage, too sandy.
14B---------- Rubicon	Severe: poor filter.	Severe: seepage.	Severe: seepage, too sandy.	Severe: seepage.	Poor: seepage, too sandy.
14D---------- Rubicon	Severe: poor filter.	Severe: seepage, slope.	Severe: seepage, too sandy.	Severe: seepage.	Poor: seepage, too sandy.
14E, 14F---------- Rubicon	Severe: poor filter, slope.	Severe: seepage, slope.	Severe: seepage, slope, too sandy.	Severe: seepage, slope.	Poor: seepage, too sandy, slope.
15B---------- Champion	Severe: wetness, percs slowly.	Severe: seepage, large stones.	Severe: seepage, wetness.	Severe: wetness.	Poor: seepage, small stones, wetness.
15D---------- Champion	Severe: wetness, percs slowly.	Severe: seepage, slope, large stones.	Severe: seepage, wetness.	Severe: wetness.	Poor: seepage, small stones, wetness.
15E---------- Champion	Severe: percs slowly, slope.	Severe: seepage, slope, large stones.	Severe: seepage, slope.	Severe: slope.	Poor: seepage, small stones, slope.
16A---------- Croswell	Severe: wetness, poor filter.	Severe: seepage, wetness.	Severe: seepage, wetness, too sandy.	Severe: seepage, wetness.	Poor: seepage, too sandy.

TABLE 12.--SANITARY FACILITIES--Continued

Soil name and map symbol	Septic tank absorption fields	Sewage lagoon areas	Trench sanitary landfill	Area sanitary landfill	Daily cover for landfill
17A---------- Au Gres	Severe: wetness, poor filter.	Severe: seepage, wetness.	Severe: seepage, wetness, too sandy.	Severe: seepage, wetness.	Poor: seepage, too sandy, wetness.
18---------- Kinross	Severe: ponding, poor filter.	Severe: seepage, ponding.	Severe: seepage, ponding, too sandy.	Severe: seepage, ponding.	Poor: seepage, too sandy, ponding.
19*:					
Dawson----------	Severe: subsides, ponding, percs slowly.	Severe: seepage, excess humus, ponding.	Severe: seepage, ponding, excess humus.	Severe: seepage, ponding.	Poor: ponding, excess humus.
Greenwood----------	Severe: subsides, ponding.	Severe: seepage, excess humus, ponding.	Severe: seepage, ponding, excess humus.	Severe: seepage, ponding.	Poor: ponding, excess humus.
20*:					
Carbondale----------	Severe: subsides, ponding, percs slowly.	Severe: seepage, excess humus, ponding.	Severe: seepage, ponding, excess humus.	Severe: seepage, ponding.	Poor: ponding, excess humus.
Tacoosh----------	Severe: subsides, ponding, percs slowly.	Severe: seepage, excess humus, ponding.	Severe: ponding, excess humus.	Severe: seepage, ponding.	Poor: ponding, excess humus.
21B---------- Allouez	Severe: poor filter.	Severe: seepage.	Severe: seepage, too sandy, large stones.	Severe: seepage.	Poor: seepage, too sandy, small stones.
23B*:					
Munising----------	Severe: wetness, percs slowly.	Moderate: seepage, slope.	Severe: wetness.	Severe: wetness.	Poor: seepage, wetness.
Yalmer----------	Severe: wetness, percs slowly.	Severe: seepage, wetness.	Severe: wetness.	Severe: seepage.	Fair: too sandy, small stones.
23D*:					
Munising----------	Severe: wetness, percs slowly.	Severe: slope.	Severe: wetness.	Severe: wetness.	Poor: seepage, wetness.
Yalmer----------	Severe: wetness, percs slowly.	Severe: seepage, slope, wetness.	Severe: wetness.	Severe: seepage.	Fair: too sandy, small stones, slope.
24B---------- Munising	Severe: wetness, percs slowly.	Moderate: seepage, slope.	Severe: wetness.	Severe: wetness.	Poor: seepage, wetness.

See footnote at end of table.

TABLE 12.--SANITARY FACILITIES--Continued

Soil name and map symbol	Septic tank absorption fields	Sewage lagoon areas	Trench sanitary landfill	Area sanitary landfill	Daily cover for landfill
24D---------- Munising	Severe: percs slowly, slope.	Severe: slope.	Severe: slope.	Severe: slope.	Poor: seepage, slope.
25A---------- Net	Severe: wetness, percs slowly.	Severe: seepage, wetness.	Severe: seepage, wetness.	Severe: seepage, wetness.	Poor: small stones, wetness, seepage.
26---------- Witbeck	Severe: ponding, percs slowly.	Severe: excess humus, ponding, large stones.	Severe: ponding.	Severe: ponding.	Poor: small stones, ponding.
27B---------- Munising	Severe: wetness, percs slowly.	Moderate: seepage, slope.	Severe: wetness.	Severe: wetness.	Poor: seepage, wetness.
29D*:					
Grayling----------	Severe: poor filter.	Severe: seepage, slope.	Severe: seepage, too sandy.	Severe: seepage.	Poor: seepage, too sandy.
Kinross----------	Severe: ponding, poor filter.	Severe: seepage, ponding.	Severe: seepage, ponding, too sandy.	Severe: seepage, ponding.	Poor: seepage, too sandy, ponding.
30B---------- Kalkaska	Severe: poor filter.	Severe: seepage.	Severe: seepage, too sandy.	Severe: seepage.	Poor: seepage, too sandy.
30D---------- Kalkaska	Severe: poor filter.	Severe: seepage, slope.	Severe: seepage, too sandy.	Severe: seepage.	Poor: seepage, too sandy.
30E, 30F---------- Kalkaska	Severe: poor filter, slope.	Severe: seepage, slope.	Severe: seepage, slope, too sandy.	Severe: seepage, slope.	Poor: seepage, too sandy, slope.
31B---------- Kallio	Severe: wetness, percs slowly.	Severe: wetness.	Severe: wetness.	Severe: wetness.	Poor: wetness.
31D---------- Kallio	Severe: wetness, percs slowly.	Severe: slope, wetness.	Severe: wetness.	Severe: wetness.	Poor: wetness.
32A*:					
Kinross----------	Severe: ponding, poor filter.	Severe: seepage, ponding.	Severe: seepage, ponding, too sandy.	Severe: seepage, ponding.	Poor: seepage, too sandy, ponding.
Croswell----------	Severe: wetness, poor filter.	Severe: seepage, wetness.	Severe: seepage, wetness, too sandy.	Severe: seepage, wetness.	Poor: seepage, too sandy.

See footnote at end of table.

TABLE 12.--SANITARY FACILITIES--Continued

Soil name and map symbol	Septic tank absorption fields	Sewage lagoon areas	Trench sanitary landfill	Area sanitary landfill	Daily cover for landfill
33*:					
Histosols.					
Aquents.					
34B---------- Ontonagon	Severe: percs slowly.	Moderate: slope.	Severe: too clayey.	Slight----------	Poor: too clayey, hard to pack.
35A---------- Rudyard	Severe: wetness, percs slowly.	Slight----------	Severe: wetness, too clayey.	Severe: wetness.	Poor: too clayey, hard to pack, wetness.
36A---------- Skanee	Severe: wetness, percs slowly.	Severe: wetness.	Severe: wetness.	Severe: wetness.	Poor: wetness.
37---------- Pickford	Severe: ponding, percs slowly.	Slight----------	Severe: ponding, too clayey.	Severe: ponding.	Poor: too clayey, hard to pack, ponding.
38B---------- Froberg	Severe: percs slowly.	Moderate: seepage, slope.	Slight----------	Slight----------	Good.
39B*:					
Munising----------	Severe: wetness, percs slowly.	Moderate: seepage, slope.	Severe: wetness.	Severe: wetness.	Poor: seepage, wetness.
Skanee----------	Severe: wetness, percs slowly.	Severe: wetness.	Severe: wetness.	Severe: wetness.	Poor: wetness.
43A---------- Moquah	Severe: flooding, wetness, percs slowly.	Severe: flooding, wetness.	Severe: flooding, wetness, too sandy.	Severe: flooding, wetness.	Poor: too sandy.
44B*:					
Michigamme---------	Severe: thin layer, seepage, wetness.	Severe: depth to rock, seepage.	Severe: depth to rock, seepage, wetness.	Severe: wetness.	Poor: area reclaim, large stones, wetness.
Rock outcrop.					
44D*:					
Michigamme---------	Severe: thin layer, seepage, wetness.	Severe: depth to rock, seepage, slope.	Severe: depth to rock, seepage, wetness.	Severe: wetness.	Poor: area reclaim, large stones, wetness.
Rock outcrop.					

See footnote at end of table.

TABLE 12.--SANITARY FACILITIES--Continued

Soil name and map symbol	Septic tank absorption fields	Sewage lagoon areas	Trench sanitary landfill	Area sanitary landfill	Daily cover for landfill
44E*, 44F*:					
Michigamme	Severe: thin layer, seepage, slope.	Severe: depth to rock, seepage, slope.	Severe: depth to rock, seepage, slope.	Severe: slope.	Poor: area reclaim, large stones, slope.
Rock outcrop.					
47B Yalmer	Severe: wetness, percs slowly.	Severe: seepage, wetness.	Severe: wetness.	Severe: seepage.	Fair: too sandy, small stones.
48B Rousseau	Severe: poor filter.	Severe: seepage.	Severe: seepage, too sandy.	Severe: seepage.	Poor: seepage, too sandy.
49 Gay	Severe: ponding.	Severe: ponding.	Severe: ponding.	Severe: ponding.	Poor: ponding.
50B Abbaye	Severe: thin layer, seepage.	Severe: depth to rock, seepage.	Severe: depth to rock, seepage.	Moderate: seepage.	Poor: area reclaim, thin layer.
50D Abbaye	Severe: thin layer, seepage.	Severe: depth to rock, seepage, slope.	Severe: depth to rock, seepage.	Moderate: seepage, slope.	Poor: area reclaim, thin layer.
51A Zeba	Severe: thin layer, seepage, wetness.	Severe: depth to rock, seepage, wetness.	Severe: depth to rock, seepage, wetness.	Severe: wetness.	Poor: area reclaim, wetness, thin layer.
52 Gay Variant	Severe: depth to rock, ponding.	Severe: depth to rock, ponding.	Severe: depth to rock, ponding.	Severe: depth to rock, ponding.	Poor: depth to rock, ponding.
53B Onota Variant	Severe: thin layer, seepage.	Severe: seepage, depth to rock.	Severe: depth to rock, seepage, too sandy.	Severe: seepage.	Poor: area reclaim, seepage, too sandy.
54B Waiska	Severe: poor filter.	Severe: seepage.	Severe: seepage, too sandy.	Severe: seepage.	Poor: seepage, too sandy, small stones.
54D Waiska	Severe: poor filter.	Severe: seepage, slope.	Severe: seepage, too sandy.	Severe: seepage.	Poor: seepage, too sandy, small stones.
56A Deerton Variant	Severe: thin layer, seepage, wetness.	Severe: seepage, depth to rock, wetness.	Severe: depth to rock, seepage, wetness.	Severe: seepage, wetness.	Poor: area reclaim, seepage, too sandy.
57A*:					
Assinins	Severe: wetness, percs slowly.	Severe: seepage, wetness.	Severe: wetness.	Severe: wetness.	Poor: wetness.
Skanee	Severe: wetness, percs slowly.	Severe: wetness.	Severe: wetness.	Severe: wetness.	Poor: wetness.

See footnote at end of table.

TABLE 12.--SANITARY FACILITIES--Continued

Soil name and map symbol	Septic tank absorption fields	Sewage lagoon areas	Trench sanitary landfill	Area sanitary landfill	Daily cover for landfill
59B---------- Amasa	Severe: poor filter.	Severe: seepage, large stones.	Severe: seepage, too sandy.	Severe: seepage.	Poor: seepage, too sandy, small stones.
59D---------- Amasa	Severe: poor filter.	Severe: seepage, slope, large stones.	Severe: seepage, too sandy.	Severe: seepage.	Poor: seepage, too sandy, small stones.
59E, 59F---------- Amasa	Severe: poor filter, slope.	Severe: seepage, slope, large stones.	Severe: seepage, slope, too sandy.	Severe: seepage, slope.	Poor: seepage, too sandy, small stones.
60B---------- Fence	Severe: percs slowly.	Moderate: slope.	Slight----------	Slight----------	Good.
61B---------- Ishpeming	Severe: thin layer, seepage.	Severe: seepage, depth to rock.	Severe: depth to rock, seepage.	Severe: seepage.	Poor: area reclaim.
61D---------- Ishpeming	Severe: thin layer, seepage.	Severe: seepage, depth to rock, slope.	Severe: depth to rock, seepage.	Severe: seepage.	Poor: area reclaim.
62*. Beaches					
64*. Pits					
65B---------- Ocqueoc	Severe: percs slowly, poor filter.	Severe: seepage.	Severe: too sandy.	Severe: seepage.	Poor: too sandy.
66B*:					
Champion----------	Severe: wetness, percs slowly.	Severe: seepage, large stones.	Severe: seepage, wetness.	Severe: wetness.	Poor: seepage, small stones, wetness.
Net----------	Severe: wetness, percs slowly.	Severe: seepage, wetness.	Severe: seepage, wetness.	Severe: seepage, wetness.	Poor: small stones, wetness, seepage.
67*:					
Witbeck----------	Severe: ponding, percs slowly.	Severe: excess humus, ponding, large stones.	Severe: ponding.	Severe: ponding.	Poor: small stones, ponding.
Tacoosh----------	Severe: subsides, ponding, percs slowly.	Severe: seepage, excess humus, ponding.	Severe: ponding, excess humus.	Severe: seepage, ponding.	Poor: ponding, excess humus.

See footnote at end of table.

TABLE 12.--SANITARY FACILITIES--Continued

Soil name and map symbol	Septic tank absorption fields	Sewage lagoon areas	Trench sanitary landfill	Area sanitary landfill	Daily cover for landfill
68B---------- Amasa	Severe: poor filter.	Severe: seepage.	Severe: seepage, too sandy.	Severe: seepage.	Poor: seepage, too sandy, small stones.
68D---------- Amasa	Severe: poor filter.	Severe: seepage, slope.	Severe: seepage, too sandy.	Severe: seepage.	Poor: seepage, too sandy, small stones.
69E*, 69F*:					
Yalmer----------	Severe: percs slowly, slope.	Severe: seepage, slope.	Severe: slope.	Severe: seepage, slope.	Poor: slope.
Munising----------	Severe: percs slowly, slope.	Severe: slope.	Severe: slope.	Severe: slope.	Poor: seepage, slope.
70---------- Winterfield	Severe: flooding, wetness, poor filter.	Severe: seepage, flooding, wetness.	Severe: flooding, seepage, wetness.	Severe: flooding, seepage, wetness.	Poor: seepage, too sandy, wetness.
71A---------- Pelkie	Severe: flooding, wetness, poor filter.	Severe: seepage, flooding, wetness.	Severe: flooding, seepage, wetness.	Severe: flooding, seepage, wetness.	Poor: seepage, too sandy.
72---------- Sturgeon	Severe: flooding, wetness, poor filter.	Severe: seepage, flooding, wetness.	Severe: flooding, seepage, wetness.	Severe: flooding, seepage, wetness.	Poor: seepage, too sandy, wetness.
73---------- Arnheim	Severe: flooding, wetness.	Severe: flooding, wetness.	Severe: flooding, wetness, too sandy.	Severe: flooding, wetness.	Poor: too sandy, wetness.
74B---------- Waiska Variant	Severe: poor filter.	Severe: seepage.	Severe: seepage, too sandy.	Severe: seepage.	Poor: seepage, too sandy, small stones.
75D---------- Fence	Severe: percs slowly, slope.	Severe: slope.	Severe: slope.	Severe: slope.	Poor: slope.
76A---------- Allendale	Severe: wetness, percs slowly, poor filter.	Severe: seepage.	Severe: wetness, too clayey.	Severe: seepage, wetness.	Poor: too clayey, hard to pack, wetness.
77A*:					
Udipsamments.					
Udorthents.					

See footnote at end of table.

TABLE 12.--SANITARY FACILITIES--Continued

Soil name and map symbol	Septic tank absorption fields	Sewage lagoon areas	Trench sanitary landfill	Area sanitary landfill	Daily cover for landfill
78B*:					
Champion	Severe: wetness, percs slowly.	Severe: seepage, large stones.	Severe: seepage, wetness.	Severe: wetness.	Poor: seepage, small stones, wetness.
Michigamme	Severe: thin layer, seepage, wetness.	Severe: depth to rock, seepage.	Severe: depth to rock, seepage, wetness.	Severe: wetness.	Poor: area reclaim, large stones, wetness.
78D*:					
Champion	Severe: wetness, percs slowly.	Severe: seepage, slope, large stones.	Severe: seepage, wetness.	Severe: wetness.	Poor: seepage, small stones, wetness.
Michigamme	Severe: thin layer, seepage, wetness.	Severe: depth to rock, seepage, slope.	Severe: depth to rock, seepage, wetness.	Severe: wetness.	Poor: area reclaim, large stones, wetness.
78E*:					
Champion	Severe: percs slowly, slope.	Severe: seepage, slope, large stones.	Severe: seepage, slope.	Severe: slope.	Poor: seepage, small stones, slope.
Michigamme	Severe: thin layer, seepage, slope.	Severe: depth to rock, seepage, slope.	Severe: depth to rock, seepage, slope.	Severe: slope.	Poor: area reclaim, large stones, slope.
79B Nunica	Severe: percs slowly.	Moderate: seepage, slope.	Moderate: too clayey.	Slight	Fair: too clayey.
79D Nunica	Severe: percs slowly.	Severe: slope.	Moderate: slope, too clayey.	Moderate: slope.	Fair: too clayey, slope.
80A Bowers	Severe: wetness, percs slowly.	Severe: wetness.	Severe: wetness.	Severe: wetness.	Poor: wetness.
81A Burt Variant	Severe: thin layer, seepage, wetness.	Severe: seepage, depth to rock, wetness.	Severe: depth to rock, seepage, wetness.	Severe: seepage, wetness.	Poor: area reclaim, seepage.
82 Roscommon Variant	Severe: thin layer, seepage, ponding.	Severe: seepage, depth to rock, ponding.	Severe: depth to rock, seepage, ponding.	Severe: seepage, ponding.	Poor: area reclaim, seepage, too sandy.
83E*:					
Nunica	Severe: percs slowly, slope.	Severe: slope.	Severe: slope.	Severe: slope.	Poor: slope.

See footnote at end of table.

TABLE 12.--SANITARY FACILITIES--Continued

Soil name and map symbol	Septic tank absorption fields	Sewage lagoon areas	Trench sanitary landfill	Area sanitary landfill	Daily cover for landfill
83E*:					
Ontonagon	Severe: percs slowly, slope.	Severe: slope.	Severe: slope, too clayey.	Severe: slope.	Poor: too clayey, hard to pack, slope.
84A Channing	Severe: wetness, poor filter.	Severe: seepage, wetness.	Severe: seepage, wetness, too sandy.	Severe: seepage, wetness.	Poor: seepage, too sandy, small stones.
86A*:					
Net	Severe: wetness, percs slowly.	Severe: seepage, wetness.	Severe: seepage, wetness.	Severe: seepage, wetness.	Poor: small stones, wetness, seepage.
Witbeck	Severe: ponding, percs slowly.	Severe: excess humus, ponding, large stones.	Severe: ponding.	Severe: ponding.	Poor: small stones, ponding.
87A*:					
Skanee	Severe: wetness, percs slowly.	Severe: wetness.	Severe: wetness.	Severe: wetness.	Poor: wetness.
Gay	Severe: ponding.	Severe: ponding.	Severe: ponding.	Severe: ponding.	Poor: ponding.
88B*:					
Munising	Severe: wetness, percs slowly.	Moderate: seepage, slope.	Severe: wetness.	Severe: wetness.	Poor: seepage, wetness.
Yalmer	Severe: wetness, percs slowly.	Severe: seepage, wetness.	Severe: wetness.	Severe: seepage.	Fair: too sandy, small stones.
88D*:					
Munising	Severe: percs slowly, slope.	Severe: slope.	Severe: slope.	Severe: slope.	Poor: seepage, slope.
Yalmer	Severe: percs slowly, slope.	Severe: seepage, slope.	Severe: slope.	Severe: seepage, slope.	Poor: slope.
88E*:					
Yalmer	Severe: percs slowly, slope.	Severe: seepage, slope.	Severe: slope.	Severe: seepage, slope.	Poor: slope.
Munising	Severe: percs slowly, slope.	Severe: slope.	Severe: slope.	Severe: slope.	Poor: seepage, slope.
91B*:					
Keweenaw	Moderate: percs slowly.	Severe: seepage.	Severe: seepage.	Severe: seepage.	Poor: seepage, small stones.

See footnote at end of table.

TABLE 12.--SANITARY FACILITIES--Continued

Soil name and map symbol	Septic tank absorption fields	Sewage lagoon areas	Trench sanitary landfill	Area sanitary landfill	Daily cover for landfill
91B*:					
Kalkaska	Severe: poor filter.	Severe: seepage.	Severe: seepage, too sandy.	Severe: seepage.	Poor: seepage, too sandy.
91D*:					
Keweenaw	Moderate: percs slowly, slope.	Severe: seepage, slope.	Severe: seepage.	Severe: seepage.	Poor: seepage, small stones.
Kalkaska	Severe: poor filter.	Severe: seepage, slope.	Severe: seepage, too sandy.	Severe: seepage.	Poor: seepage, too sandy.
91E*:					
Keweenaw	Severe: slope.	Severe: seepage, slope.	Severe: seepage, slope.	Severe: seepage, slope.	Poor: seepage, small stones, slope.
Kalkaska	Severe: poor filter, slope.	Severe: seepage, slope.	Severe: seepage, slope, too sandy.	Severe: seepage, slope.	Poor: seepage, too sandy, slope.
92B*:					
Keweenaw	Moderate: percs slowly.	Severe: seepage.	Severe: seepage.	Severe: seepage.	Poor: seepage, small stones.
Kalkaska	Severe: poor filter.	Severe: seepage.	Severe: seepage, too sandy.	Severe: seepage.	Poor: seepage, too sandy.
92D*:					
Keweenaw	Moderate: percs slowly, slope.	Severe: seepage, slope.	Severe: seepage.	Severe: seepage.	Poor: seepage, small stones.
Kalkaska	Severe: poor filter.	Severe: seepage, slope.	Severe: seepage, too sandy.	Severe: seepage.	Poor: seepage, too sandy.
92E*:					
Keweenaw	Severe: slope.	Severe: seepage, slope.	Severe: seepage, slope.	Severe: seepage, slope.	Poor: seepage, small stones, slope.
Kalkaska	Severe: poor filter, slope.	Severe: seepage, slope.	Severe: seepage, slope, too sandy.	Severe: seepage, slope.	Poor: seepage, too sandy, slope.
93B*:					
Deerton	Severe: thin layer, seepage.	Severe: seepage.	Severe: seepage.	Severe: seepage.	Poor: area reclaim, seepage, too sandy.

See footnote at end of table.

TABLE 12.--SANITARY FACILITIES--Continued

Soil name and map symbol	Septic tank absorption fields	Sewage lagoon areas	Trench sanitary landfill	Area sanitary landfill	Daily cover for landfill
93B*:					
Abbaye	Severe: thin layer, seepage.	Severe: depth to rock, seepage.	Severe: depth to rock, seepage.	Moderate: seepage.	Poor: area reclaim, thin layer.
93D*:					
Deerton	Severe: thin layer, seepage, slope.	Severe: seepage, slope.	Severe: seepage, slope.	Severe: seepage, slope.	Poor: area reclaim, seepage, too sandy.
Abbaye	Severe: thin layer, seepage, slope.	Severe: depth to rock, seepage, slope.	Severe: depth to rock, seepage, slope.	Severe: slope.	Poor: area reclaim, slope, thin layer.
94B Deerton	Severe: thin layer, seepage.	Severe: seepage.	Severe: seepage.	Severe: seepage.	Poor: area reclaim, seepage, too sandy.
95B Amasa	Severe: poor filter.	Severe: seepage.	Severe: seepage, too sandy.	Severe: seepage.	Poor: seepage, too sandy.
95D Amasa	Severe: poor filter.	Severe: seepage, slope.	Severe: seepage, too sandy.	Severe: seepage.	Poor: seepage, too sandy.
96A Richter Variant	Severe: wetness, percs slowly.	Severe: wetness.	Severe: wetness.	Severe: wetness.	Poor: wetness, thin layer.
98A*:					
Burt Variant	Severe: thin layer, seepage, wetness.	Severe: seepage, depth to rock, wetness.	Severe: depth to rock, seepage, wetness.	Severe: seepage, wetness.	Poor: area reclaim, seepage.
Burt	Severe: thin layer, seepage, ponding.	Severe: seepage, depth to rock, ponding.	Severe: depth to rock, seepage, ponding.	Severe: seepage, ponding.	Poor: area reclaim, seepage, too sandy.
99B*:					
Rubicon	Severe: poor filter.	Severe: seepage.	Severe: seepage, too sandy.	Severe: seepage.	Poor: seepage, too sandy.
Rousseau	Severe: poor filter.	Severe: seepage.	Severe: seepage, too sandy.	Severe: seepage.	Poor: seepage, too sandy.
Ocqueoc	Severe: percs slowly, poor filter.	Severe: seepage.	Severe: too sandy.	Severe: seepage.	Poor: too sandy.
99D*:					
Rubicon	Severe: poor filter.	Severe: seepage, slope.	Severe: seepage, too sandy.	Severe: seepage.	Poor: seepage, too sandy.

See footnote at end of table.

TABLE 12.--SANITARY FACILITIES--Continued

Soil name and map symbol	Septic tank absorption fields	Sewage lagoon areas	Trench sanitary landfill	Area sanitary landfill	Daily cover for landfill
99D*:					
Rousseau	Severe: poor filter.	Severe: seepage, slope.	Severe: seepage, too sandy.	Severe: seepage.	Poor: seepage, too sandy.
Ocqueoc	Severe: percs slowly, poor filter.	Severe: seepage, slope.	Severe: too sandy.	Severe: seepage.	Poor: too sandy.
100B Amasa	Severe: poor filter.	Severe: seepage, large stones.	Severe: seepage, too sandy.	Severe: seepage.	Poor: seepage, too sandy, small stones.
100D Amasa	Severe: poor filter.	Severe: seepage, slope, large stones.	Severe: seepage, too sandy.	Severe: seepage.	Poor: seepage, too sandy, small stones.
100E Amasa	Severe: poor filter, slope.	Severe: seepage, slope, large stones.	Severe: seepage, slope, too sandy.	Severe: seepage, slope.	Poor: seepage, too sandy, small stones.
101E*, 101F*:					
Peshekee	Severe: thin layer, seepage, slope.	Severe: depth to rock, seepage, slope.	Severe: depth to rock, seepage, slope.	Severe: seepage, slope.	Poor: area reclaim, large stones, slope.
Rock outcrop.					
102A Channing	Severe: wetness, poor filter.	Severe: seepage, wetness, large stones.	Severe: seepage, wetness, too sandy.	Severe: seepage, wetness.	Poor: seepage, too sandy, small stones.
105*:					
Pits.					
Dumps.					
106B Yalmer	Severe: wetness, percs slowly.	Severe: seepage, wetness.	Severe: wetness.	Severe: seepage.	Fair: too sandy, small stones.
107F*:					
Rousseau	Severe: poor filter, slope.	Severe: seepage, slope.	Severe: seepage, slope, too sandy.	Severe: seepage, slope.	Poor: seepage, too sandy, slope.
Ocqueoc	Severe: percs slowly, poor filter, slope.	Severe: seepage, slope.	Severe: slope, too sandy.	Severe: seepage, slope.	Poor: too sandy, slope.

See footnote at end of table.

TABLE 12.--SANITARY FACILITIES--Continued

Soil name and map symbol	Septic tank absorption fields	Sewage lagoon areas	Trench sanitary landfill	Area sanitary landfill	Daily cover for landfill
108B*:					
Champion	Severe: wetness, percs slowly.	Severe: seepage, large stones.	Severe: seepage, wetness.	Severe: wetness.	Poor: seepage, small stones, wetness.
Net	Severe: wetness, percs slowly.	Severe: seepage, wetness.	Severe: seepage, wetness.	Severe: seepage, wetness.	Poor: small stones, wetness, seepage.
Michigamme	Severe: thin layer, seepage, wetness.	Severe: depth to rock, seepage.	Severe: depth to rock, seepage, wetness.	Severe: wetness.	Poor: area reclaim, large stones, wetness.
109F*:					
Rousseau	Severe: poor filter, slope.	Severe: seepage, slope.	Severe: seepage, slope, too sandy.	Severe: seepage, slope.	Poor: seepage, too sandy, slope.
Fence	Severe: percs slowly, slope.	Severe: slope.	Severe: slope.	Severe: slope.	Poor: slope.
Ocqueoc	Severe: percs slowly, poor filter, slope.	Severe: seepage, slope.	Severe: slope, too sandy.	Severe: seepage, slope.	Poor: too sandy, slope.
110E*:					
Ishpeming	Severe: thin layer, seepage, slope.	Severe: seepage, depth to rock, slope.	Severe: depth to rock, seepage, slope.	Severe: seepage, slope.	Poor: area reclaim, slope.
Rock outcrop.					
111B*:					
Yalmer	Severe: wetness, percs slowly.	Severe: seepage, wetness.	Severe: wetness.	Severe: seepage.	Fair: too sandy, small stones.
Assinins	Severe: wetness, percs slowly.	Severe: seepage, wetness.	Severe: wetness.	Severe: wetness.	Poor: wetness.
112A Assinins	Severe: wetness, percs slowly.	Severe: seepage, wetness.	Severe: wetness.	Severe: wetness.	Poor: wetness.
113B Petticoat	Moderate: percs slowly, large stones.	Severe: seepage, large stones.	Severe: seepage, large stones.	Severe: seepage.	Poor: thin layer.
113D Petticoat	Moderate: percs slowly, slope, large stones.	Severe: seepage, slope, large stones.	Severe: seepage, large stones.	Severe: seepage.	Poor: thin layer.

See footnote at end of table.

TABLE 12.--SANITARY FACILITIES--Continued

Soil name and map symbol	Septic tank absorption fields	Sewage lagoon areas	Trench sanitary landfill	Area sanitary landfill	Daily cover for landfill
114B---------- Peshekee Variant	Severe: thin layer, seepage.	Severe: depth to rock, seepage.	Severe: depth to rock, seepage.	Severe: seepage.	Poor: area reclaim, large stones.
114E---------- Peshekee Variant	Severe: thin layer, seepage, slope.	Severe: depth to rock, seepage, slope.	Severe: depth to rock, seepage, slope.	Severe: seepage, slope.	Poor: area reclaim, large stones, slope.
115D*:					
Munising----------	Severe: wetness, percs slowly.	Severe: slope.	Severe: wetness.	Severe: wetness.	Poor: seepage, wetness.
Michigamme---------	Severe: thin layer, seepage, wetness.	Severe: depth to rock, seepage, slope.	Severe: depth to rock, seepage, wetness.	Severe: wetness.	Poor: area reclaim, large stones, wetness.
115E*:					
Munising----------	Severe: percs slowly, slope.	Severe: slope.	Severe: slope.	Severe: slope.	Poor: seepage, slope.
Michigamme---------	Severe: thin layer, seepage, slope.	Severe: depth to rock, seepage, slope.	Severe: depth to rock, seepage, slope.	Severe: slope.	Poor: area reclaim, large stones, slope.
116F*:					
Udorthents.					
Udipsamments.					

* See description of the map unit for composition and behavior characteristics of the map unit.

TABLE 13.--CONSTRUCTION MATERIALS

(Some terms that describe restrictive soil features are defined in the Glossary. See text for definitions of "good," "fair," and other terms. Absence of an entry indicates that the soil was not rated. The information in this table indicates the dominant soil condition but does not eliminate the need for onsite investigation)

Soil name and map symbol	Roadfill	Sand	Gravel	Topsoil
10B Watton	Poor: low strength.	Improbable: excess fines.	Improbable: excess fines.	Fair: large stones, area reclaim.
10D Watton	Poor: low strength.	Improbable: excess fines.	Improbable: excess fines.	Fair: large stones, area reclaim, slope.
11A Alstad	Fair: wetness.	Improbable: excess fines.	Improbable: excess fines.	Fair: small stones, area reclaim.
12 Alstad Variant	Poor: low strength, wetness.	Improbable: excess fines.	Improbable: excess fines.	Poor: wetness.
13B, 13D Grayling	Good	Probable	Improbable: too sandy.	Poor: too sandy.
14B, 14D Rubicon	Good	Probable	Improbable: too sandy.	Poor: too sandy.
14E, 14F Rubicon	Poor: slope.	Probable	Improbable: too sandy.	Poor: too sandy, slope.
15B, 15D Champion	Fair: large stones, wetness.	Probable	Improbable: too sandy.	Poor: large stones, area reclaim.
15E Champion	Poor: slope.	Probable	Improbable: too sandy.	Poor: large stones, area reclaim, slope.
16A Croswell	Fair: wetness.	Probable	Improbable: too sandy.	Poor: too sandy.
17A Au Gres	Poor: wetness.	Probable	Improbable: too sandy.	Poor: too sandy, wetness.
18 Kinross	Poor: wetness.	Probable	Improbable: too sandy.	Poor: too sandy, wetness.
19*:				
Dawson	Poor: wetness.	Probable	Improbable: too sandy.	Poor: excess humus, wetness.
Greenwood	Poor: wetness, low strength.	Improbable: excess humus.	Improbable: excess humus.	Poor: excess humus, wetness.

See footnote at end of table.

TABLE 13.--CONSTRUCTION MATERIALS--Continued

Soil name and map symbol	Roadfill	Sand	Gravel	Topsoil
20*:				
Carbondale	Poor: wetness.	Improbable: excess humus.	Improbable: excess humus.	Poor: excess humus, wetness.
Tacoosh	Poor: wetness.	Improbable: excess fines.	Improbable: excess fines.	Poor: excess humus, wetness.
21B Allouez	Fair: large stones.	Probable	Probable	Poor: small stones, area reclaim.
23B*, 23D*:				
Munising	Fair: wetness.	Improbable: excess fines.	Improbable: excess fines.	Fair: area reclaim, too sandy, small stones.
Yalmer	Fair: wetness.	Improbable: excess fines.	Improbable: excess fines.	Poor: small stones.
24B Munising	Fair: wetness.	Improbable: excess fines.	Improbable: excess fines.	Fair: area reclaim, too sandy, small stones.
24D Munising	Fair: slope.	Improbable: excess fines.	Improbable: excess fines.	Poor: slope.
25A Net	Poor: wetness.	Probable	Improbable: too sandy.	Poor: small stones, area reclaim, wetness.
26 Witbeck	Poor: wetness.	Improbable: excess fines.	Improbable: excess fines.	Poor: excess humus, large stones, area reclaim.
27B Munising	Fair: wetness.	Improbable: excess fines.	Improbable: excess fines.	Fair: area reclaim, too sandy, small stones.
29D*:				
Grayling	Good	Probable	Improbable: too sandy.	Poor: too sandy.
Kinross	Poor: wetness.	Probable	Improbable: too sandy.	Poor: too sandy, wetness.
30B, 30D Kalkaska	Good	Probable	Improbable: too sandy.	Poor: too sandy.
30E, 30F Kalkaska	Poor: slope.	Probable	Improbable: too sandy.	Poor: too sandy, slope.

See footnote at end of table.

TABLE 13.--CONSTRUCTION MATERIALS--Continued

Soil name and map symbol	Roadfill	Sand	Gravel	Topsoil
31B, 31D Kallio	Poor: wetness.	Improbable: excess fines.	Improbable: excess fines.	Poor: area reclaim, large stones, wetness.
32A*:				
Kinross	Poor: wetness.	Probable	Improbable: too sandy.	Poor: too sandy, wetness.
Croswell	Fair: wetness.	Probable	Improbable: too sandy.	Poor: too sandy.
34B Ontonagon	Poor: low strength, shrink-swell.	Improbable: excess fines.	Improbable: excess fines.	Poor: too clayey.
35A Rudyard	Poor: low strength, shrink-swell, wetness.	Improbable: excess fines.	Improbable: excess fines.	Poor: wetness, too clayey.
36A Skanee	Poor: wetness.	Improbable: excess fines.	Improbable: excess fines.	Poor: area reclaim, wetness.
37 Pickford	Poor: low strength, wetness.	Improbable: excess fines.	Improbable: excess fines.	Poor: too clayey, wetness.
38B Froberg	Good	Improbable: excess fines.	Improbable: excess fines.	Poor: thin layer.
39B*:				
Munising	Fair: wetness.	Improbable: excess fines.	Improbable: excess fines.	Fair: area reclaim, too sandy, small stones.
Skanee	Poor: wetness.	Improbable: excess fines.	Improbable: excess fines.	Poor: area reclaim, wetness.
43A Moquah	Good	Improbable: excess fines.	Improbable: excess fines.	Fair: thin layer.
44B*, 44D*:				
Michigamme	Poor: area reclaim.	Improbable: excess fines.	Improbable: excess fines.	Poor: large stones.
Rock outcrop.				
44E*, 44F*:				
Michigamme	Poor: area reclaim, slope.	Improbable: excess fines.	Improbable: excess fines.	Poor: large stones, slope.
Rock outcrop.				
47B Yalmer	Fair: wetness.	Improbable: excess fines.	Improbable: excess fines.	Poor: small stones.
48B Rousseau	Good	Probable	Improbable: too sandy.	Poor: too sandy.

See footnote at end of table.

TABLE 13.--CONSTRUCTION MATERIALS--Continued

Soil name and map symbol	Roadfill	Sand	Gravel	Topsoil
49 Gay	Poor: wetness.	Improbable: excess fines.	Improbable: excess fines.	Poor: wetness.
50B, 50D Abbaye	Poor: area reclaim.	Improbable: excess fines.	Improbable: excess fines.	Fair: depth to rock, small stones, thin layer.
51A Zeba	Poor: area reclaim, wetness.	Improbable: excess fines.	Improbable: excess fines.	Poor: small stones, wetness.
52 Gay Variant	Poor: depth to rock, wetness.	Improbable: excess fines.	Improbable: excess fines.	Poor: large stones, wetness.
53B Onota Variant	Poor: area reclaim, thin layer.	Improbable: thin layer.	Improbable: too sandy.	Poor: depth to rock, too sandy, small stones.
54B, 54D Waiska	Good	Probable	Probable	Poor: too sandy, small stones, area reclaim.
56A Deerton Variant	Poor: area reclaim, wetness.	Improbable: thin layer.	Improbable: too sandy.	Poor: too sandy, wetness.
57A*:				
Assinins	Poor: wetness.	Improbable: excess fines.	Improbable: excess fines.	Poor: too sandy, wetness.
Skanee	Poor: wetness.	Improbable: excess fines.	Improbable: excess fines.	Poor: area reclaim, wetness.
59B, 59D Amasa	Fair: large stones.	Probable	Probable	Poor: large stones, area reclaim.
59E, 59F Amasa	Poor: slope.	Probable	Probable	Poor: large stones, area reclaim, slope.
60B Fence	Good	Improbable: excess fines.	Improbable: excess fines.	Good.
61B, 61D Ishpeming	Poor: area reclaim.	Probable	Improbable: too sandy.	Fair: area reclaim, too sandy, thin layer.
65B Ocqueoc	Fair: shrink-swell.	Improbable: excess fines.	Improbable: excess fines.	Poor: too sandy.
66B*:				
Champion	Fair: large stones, wetness.	Probable	Improbable: too sandy.	Poor: large stones, area reclaim.

See footnote at end of table.

TABLE 13.--CONSTRUCTION MATERIALS--Continued

Soil name and map symbol	Roadfill	Sand	Gravel	Topsoil
66B*:				
Net	Poor: wetness.	Probable	Improbable: too sandy.	Poor: small stones, area reclaim, wetness.
67*:				
Witbeck	Poor: wetness.	Improbable: excess fines.	Improbable: excess fines.	Poor: excess humus, large stones, area reclaim.
Tacoosh	Poor: wetness.	Improbable: excess fines.	Improbable: excess fines.	Poor: excess humus, wetness.
68B, 68D Amasa	Good	Probable	Probable	Poor: small stones, area reclaim.
69E*, 69F*:				
Yalmer	Poor: slope.	Improbable: excess fines.	Improbable: excess fines.	Poor: small stones, slope.
Munising	Poor: slope.	Improbable: excess fines.	Improbable: excess fines.	Poor: slope.
70 Winterfield	Poor: wetness.	Probable	Improbable: too sandy.	Poor: too sandy, wetness.
71A Pelkie	Fair: wetness.	Probable	Improbable: too sandy.	Poor: too sandy.
72 Sturgeon	Poor: wetness.	Probable	Improbable: too sandy.	Poor: wetness.
73 Arnheim	Poor: wetness.	Improbable: excess fines.	Improbable: excess fines.	Poor: thin layer, wetness.
74B Waiska Variant	Good	Probable	Probable	Poor: area reclaim, too sandy, small stones.
75D Fence	Fair: slope.	Improbable: excess fines.	Improbable: excess fines.	Poor: slope.
76A Allendale	Poor: low strength.	Improbable: excess fines.	Improbable: excess fines.	Poor: too sandy.
78B*, 78D*:				
Champion	Fair: large stones, wetness.	Probable	Improbable: too sandy.	Poor: large stones, area reclaim.
Michigamme	Poor: area reclaim.	Improbable: excess fines.	Improbable: excess fines.	Poor: large stones.

See footnote at end of table.

TABLE 13.--CONSTRUCTION MATERIALS--Continued

Soil name and map symbol	Roadfill	Sand	Gravel	Topsoil
78E*:				
Champion	Poor: slope.	Probable	Improbable: too sandy.	Poor: large stones, area reclaim, slope.
Michigamme	Poor: area reclaim, slope.	Improbable: excess fines.	Improbable: excess fines.	Poor: large stones, slope.
79B Nunica	Good	Improbable: excess fines.	Improbable: excess fines.	Good.
79D Nunica	Good	Improbable: excess fines.	Improbable: excess fines.	Fair: slope.
80A Bowers	Poor: low strength.	Improbable: excess fines.	Improbable: excess fines.	Fair: thin layer.
81A Burt Variant	Poor: area reclaim, wetness, thin layer.	Improbable: thin layer.	Improbable: too sandy.	Poor: area reclaim, small stones.
82 Roscommon Variant	Poor: area reclaim, wetness.	Improbable: thin layer.	Improbable: too sandy.	Poor: too sandy, wetness.
83E*:				
Nunica	Poor: slope.	Improbable: excess fines.	Improbable: excess fines.	Poor: slope.
Ontonagon	Poor: low strength, shrink-swell.	Improbable: excess fines.	Improbable: excess fines.	Good.
84A Channing	Poor: wetness.	Probable	Probable	Poor: small stones, area reclaim, wetness.
86A*:				
Net	Poor: wetness.	Probable	Improbable: too sandy.	Poor: small stones, area reclaim, wetness.
Witbeck	Poor: wetness.	Improbable: excess fines.	Improbable: excess fines.	Poor: excess humus, large stones, area reclaim.
87A*:				
Skanee	Poor: wetness.	Improbable: excess fines.	Improbable: excess fines.	Poor: area reclaim, wetness.
Gay	Poor: wetness.	Improbable: excess fines.	Improbable: excess fines.	Poor: wetness.

See footnote at end of table.

TABLE 13.--CONSTRUCTION MATERIALS--Continued

Soil name and map symbol	Roadfill	Sand	Gravel	Topsoil
88B*:				
Munising	Fair: wetness.	Improbable: excess fines.	Improbable: excess fines.	Fair: area reclaim, too sandy, small stones.
Yalmer	Fair: wetness.	Improbable: excess fines.	Improbable: excess fines.	Poor: small stones.
88D*:				
Munising	Fair: slope.	Improbable: excess fines.	Improbable: excess fines.	Poor: slope.
Yalmer	Fair: slope.	Improbable: excess fines.	Improbable: excess fines.	Poor: small stones, slope.
88E*:				
Yalmer	Poor: slope.	Improbable: excess fines.	Improbable: excess fines.	Poor: small stones, slope.
Munising	Poor: slope.	Improbable: excess fines.	Improbable: excess fines.	Poor: slope.
91B*, 91D*:				
Keweenaw	Good	Probable	Probable	Poor: small stones, area reclaim.
Kalkaska	Good	Probable	Improbable: too sandy.	Poor: too sandy.
91E*:				
Keweenaw	Poor: slope.	Probable	Probable	Poor: small stones, area reclaim, slope.
Kalkaska	Poor: slope.	Probable	Improbable: too sandy.	Poor: too sandy, slope.
92B*, 92D*:				
Keweenaw	Good	Probable	Probable	Poor: small stones, area reclaim.
Kalkaska	Good	Probable	Improbable: too sandy.	Poor: too sandy.
92E*:				
Keweenaw	Poor: slope.	Probable	Probable	Poor: small stones, area reclaim, slope.
Kalkaska	Poor: slope.	Probable	Improbable: too sandy.	Poor: too sandy, slope.

See footnote at end of table.

TABLE 13.--CONSTRUCTION MATERIALS--Continued

Soil name and map symbol	Roadfill	Sand	Gravel	Topsoil
93B*:				
Deerton	Poor: area reclaim.	Improbable: thin layer.	Improbable: too sandy.	Poor: too sandy.
Abbaye	Poor: area reclaim.	Improbable: excess fines.	Improbable: excess fines.	Fair: depth to rock, small stones, thin layer.
93D*:				
Deerton	Poor: area reclaim.	Improbable: thin layer.	Improbable: too sandy.	Poor: too sandy, slope.
Abbaye	Poor: area reclaim.	Improbable: excess fines.	Improbable: excess fines.	Poor: slope.
94B Deerton	Poor: area reclaim.	Improbable: thin layer.	Improbable: too sandy.	Poor: too sandy.
95B Amasa	Good	Probable	Improbable: too sandy.	Fair: small stones, thin layer.
95D Amasa	Good	Probable	Improbable: too sandy.	Fair: small stones, thin layer, slope.
96A Richter Variant	Poor: wetness.	Improbable: excess fines.	Improbable: excess fines.	Poor: wetness.
98A*:				
Burt Variant	Poor: area reclaim, wetness, thin layer.	Improbable: thin layer.	Improbable: too sandy.	Poor: area reclaim, small stones.
Burt	Poor: area reclaim, wetness, thin layer.	Improbable: thin layer.	Improbable: too sandy.	Poor: depth to rock, too sandy, wetness.
99B*, 99D*:				
Rubicon	Good	Probable	Improbable: too sandy.	Poor: too sandy.
Rousseau	Good	Probable	Improbable: too sandy.	Poor: too sandy.
Ocqueoc	Fair: shrink-swell.	Improbable: excess fines.	Improbable: excess fines.	Poor: too sandy.
100B, 100D Amasa	Fair: large stones.	Probable	Probable	Poor: large stones, area reclaim.
100E Amasa	Poor: slope.	Probable	Probable	Poor: large stones, area reclaim, slope.

See footnote at end of table.

TABLE 13.--CONSTRUCTION MATERIALS--Continued

Soil name and map symbol	Roadfill	Sand	Gravel	Topsoil
101E*, 101F*:				
Peshekee	Poor: area reclaim, thin layer.	Improbable: excess fines.	Improbable: excess fines.	Poor: area reclaim, large stones, thin layer.
Rock outcrop.				
102A Channing	Poor: wetness.	Probable	Probable	Poor: small stones, area reclaim, wetness.
106B Yalmer	Fair: wetness.	Improbable: excess fines.	Improbable: excess fines.	Poor: small stones.
107F*:				
Rousseau	Poor: slope.	Probable	Improbable: too sandy.	Poor: too sandy, slope.
Ocqueoc	Poor: slope.	Improbable: excess fines.	Improbable: excess fines.	Poor: too sandy, slope.
108B*:				
Champion	Fair: large stones, wetness.	Probable	Improbable: too sandy.	Poor: large stones, area reclaim.
Net	Poor: wetness.	Probable	Improbable: too sandy.	Poor: small stones, area reclaim, wetness.
Michigamme	Poor: area reclaim.	Improbable: excess fines.	Improbable: excess fines.	Poor: large stones.
109F*:				
Rousseau	Poor: slope.	Probable	Improbable: too sandy.	Poor: too sandy, slope.
Fence	Poor: slope.	Improbable: excess fines.	Improbable: excess fines.	Poor: slope.
Ocqueoc	Poor: slope.	Improbable: excess fines.	Improbable: excess fines.	Poor: too sandy, slope.
110E*:				
Ishpeming	Poor: area reclaim, slope.	Probable	Improbable: too sandy.	Poor: slope.
Rock outcrop.				
111B*:				
Yalmer	Fair: wetness.	Improbable: excess fines.	Improbable: excess fines.	Poor: small stones.

See footnote at end of table.

TABLE 13.--CONSTRUCTION MATERIALS--Continued

Soil name and map symbol	Roadfill	Sand	Gravel	Topsoil
111B*:				
Assinins	Poor: wetness.	Improbable: excess fines.	Improbable: excess fines.	Poor: too sandy, wetness.
112A Assinins	Poor: wetness.	Improbable: excess fines.	Improbable: excess fines.	Poor: too sandy, wetness.
113B, 113D Petticoat	Fair: large stones.	Probable	Probable	Poor: large stones, area reclaim.
114B, 114E Peshekee Variant	Poor: area reclaim, large stones, thin layer.	Improbable: excess fines, large stones.	Improbable: excess fines, large stones.	Poor: area reclaim, large stones, thin layer.
115D*:				
Munising	Fair: wetness.	Improbable: excess fines.	Improbable: excess fines.	Fair: area reclaim, too sandy, small stones.
Michigamme	Poor: area reclaim.	Improbable: excess fines.	Improbable: excess fines.	Poor: large stones.
115E*:				
Munising	Poor: slope.	Improbable: excess fines.	Improbable: excess fines.	Poor: slope.
Michigamme	Poor: area reclaim, slope.	Improbable: excess fines.	Improbable: excess fines.	Poor: large stones, slope.

* See description of the map unit for composition and behavior characteristics of the map unit.

TABLE 14.--WATER MANAGEMENT

(Some terms that describe restrictive soil features are defined in the Glossary. See text for definitions of "slight," "moderate," and "severe." Absence of an entry indicates that the soil was not evaluated. The information in this table indicates the dominant soil condition but does not eliminate the need for onsite investigation)

Soil name and map symbol	Limitations for--			Features affecting--		
	Pond reservoir areas	Embankments, dikes, and levees	Aquifer-fed excavated ponds	Drainage	Irrigation	Grassed waterways
10B---------- Watton	Moderate: slope.	Moderate: piping.	Severe: no water.	Deep to water	Rooting depth, slope, erodes easily.	Erodes easily, rooting depth.
10D---------- Watton	Severe: slope.	Moderate: piping.	Severe: no water.	Deep to water	Rooting depth, slope, erodes easily.	Slope, erodes easily, rooting depth.
11A---------- Alstad	Moderate: seepage.	Severe: thin layer.	Severe: slow refill.	Frost action---	Wetness--------	Wetness, erodes easily.
12---------- Alstad Variant	Slight---------	Severe: ponding.	Severe: slow refill.	Ponding, frost action.	Ponding, rooting depth.	Wetness, rooting depth.
13B---------- Grayling	Severe: seepage.	Severe: seepage, piping.	Severe: no water.	Deep to water	Droughty, fast intake.	Droughty.
13D---------- Grayling	Severe: seepage, slope.	Severe: seepage, piping.	Severe: no water.	Deep to water	Slope, droughty, fast intake.	Slope, droughty.
14B---------- Rubicon	Severe: seepage.	Severe: seepage, piping.	Severe: no water.	Deep to water	Slope, droughty, fast intake.	Droughty.
14D, 14E, 14F----- Rubicon	Severe: seepage, slope.	Severe: seepage, piping.	Severe: no water.	Deep to water	Slope, droughty, fast intake.	Slope, droughty.
15B---------- Champion	Severe: seepage.	Severe: seepage, large stones.	Severe: no water.	Percs slowly, slope, cutbanks cave.	Slope, large stones, wetness.	Large stones, wetness.
15D---------- Champion	Severe: slope, seepage.	Severe: seepage, large stones.	Severe: no water.	Percs slowly, slope, cutbanks cave.	Slope, large stones, wetness.	Large stones, wetness, slope.
15E---------- Champion	Severe: slope, seepage.	Severe: seepage, large stones.	Severe: no water.	Deep to water	Slope, large stones, droughty.	Large stones, slope, droughty.
16A---------- Croswell	Severe: seepage.	Severe: seepage, piping.	Severe: cutbanks cave.	Cutbanks cave	Wetness, droughty.	Droughty.
17A---------- Au Gres	Severe: seepage.	Severe: seepage, piping, wetness.	Severe: cutbanks cave.	Cutbanks cave	Wetness, droughty, fast intake.	Wetness, droughty.
18---------- Kinross	Severe: seepage.	Severe: seepage, piping, ponding.	Severe: cutbanks cave.	Ponding, cutbanks cave.	Ponding, droughty, fast intake.	Wetness, droughty.

TABLE 14.--WATER MANAGEMENT--Continued

Soil name and map symbol	Limitations for-- Pond reservoir areas	Embankments, dikes, and levees	Aquifer-fed excavated ponds	Features affecting-- Drainage	Irrigation	Grassed waterways
19*:						
Dawson	Severe: seepage.	Severe: excess humus, ponding.	Severe: slow refill, cutbanks cave.	Ponding, subsides, frost action.	Ponding	Wetness.
Greenwood	Severe: seepage.	Severe: excess humus, ponding.	Moderate: slow refill.	Ponding, frost action.	Ponding	Wetness.
20*:						
Carbondale	Severe: seepage.	Severe: excess humus, ponding.	Severe: slow refill.	Ponding, subsides, frost action.	Ponding, soil blowing.	Wetness.
Tacoosh	Severe: seepage.	Severe: excess humus, ponding.	Severe: slow refill.	Ponding, subsides, frost action.	Ponding, soil blowing.	Wetness.
21B Allouez	Severe: seepage.	Severe: seepage, large stones.	Severe: no water.	Deep to water	Large stones, droughty, slope.	Large stones, droughty.
23B*:						
Munising	Moderate: seepage, slope.	Severe: seepage, piping.	Severe: no water.	Percs slowly, slope, cutbanks cave.	Slope, wetness, droughty.	Wetness, droughty.
Yalmer	Severe: seepage.	Severe: piping.	Severe: no water.	Percs slowly, slope, cutbanks cave.	Slope, wetness, droughty.	Droughty, rooting depth.
23D*:						
Munising	Severe: slope.	Severe: seepage, piping.	Severe: no water.	Percs slowly, slope, cutbanks cave.	Slope, wetness, droughty.	Wetness, slope, droughty.
Yalmer	Severe: seepage, slope.	Severe: piping.	Severe: no water.	Percs slowly, slope, cutbanks cave.	Slope, wetness, droughty.	Slope, droughty, rooting depth.
24B Munising	Moderate: seepage, slope.	Severe: seepage, piping.	Severe: no water.	Percs slowly, slope, cutbanks cave.	Slope, wetness, droughty.	Wetness, droughty.
24D Munising	Severe: slope.	Severe: seepage, piping.	Severe: no water.	Deep to water	Slope, droughty, fast intake.	Slope, droughty, rooting depth.
25A Net	Severe: seepage.	Severe: seepage, wetness.	Severe: no water.	Percs slowly, frost action, cutbanks cave.	Large stones, wetness, droughty.	Large stones, wetness, droughty.
26 Witbeck	Moderate: seepage.	Severe: piping, large stones, ponding.	Severe: slow refill.	Ponding, frost action.	Large stones, ponding, droughty.	Large stones, wetness, droughty.
27B Munising	Moderate: seepage, slope.	Severe: seepage, piping.	Severe: no water.	Percs slowly, slope, cutbanks cave.	Slope, wetness, droughty.	Wetness, droughty.

See footnote at end of table.

TABLE 14.--WATER MANAGEMENT--Continued

Soil name and map symbol	Limitations for-- Pond reservoir areas	Embankments, dikes, and levees	Aquifer-fed excavated ponds	Features affecting-- Drainage	Irrigation	Grassed waterways
29D*:						
Grayling	Severe: seepage, slope.	Severe: seepage, piping.	Severe: no water.	Deep to water	Slope, droughty, fast intake.	Slope, droughty.
Kinross	Severe: seepage.	Severe: seepage, piping, ponding.	Severe: cutbanks cave.	Ponding, cutbanks cave.	Ponding, droughty, fast intake.	Wetness, droughty.
30B Kalkaska	Severe: seepage.	Severe: seepage, piping.	Severe: no water.	Deep to water	Slope, droughty, fast intake.	Droughty.
30D, 30E, 30F Kalkaska	Severe: seepage, slope.	Severe: seepage, piping.	Severe: no water.	Deep to water	Slope, droughty, fast intake.	Slope, droughty.
31B Kallio	Moderate: slope.	Severe: piping, wetness.	Severe: no water.	Percs slowly, slope.	Wetness, droughty, percs slowly.	Large stones, wetness.
31D Kallio	Severe: slope.	Severe: piping, wetness.	Severe: no water.	Percs slowly, slope.	Wetness, droughty, percs slowly.	Large stones, wetness, slope.
32A*:						
Kinross	Severe: seepage.	Severe: seepage, piping, ponding.	Severe: cutbanks cave.	Ponding, cutbanks cave.	Ponding, droughty, fast intake.	Wetness, droughty.
Croswell	Severe: seepage.	Severe: seepage, piping.	Severe: cutbanks cave.	Cutbanks cave	Wetness, droughty.	Droughty.
33*:						
Histosols.						
Aquents.						
34B Ontonagon	Moderate: slope.	Severe: hard to pack.	Severe: no water.	Deep to water	Percs slowly, slope.	Percs slowly.
35A Rudyard	Slight	Severe: wetness.	Severe: no water.	Percs slowly	Wetness, percs slowly.	Wetness, erodes easily, percs slowly.
36A Skanee	Moderate: seepage.	Severe: piping, wetness.	Severe: no water.	Percs slowly, frost action.	Wetness, droughty, fast intake.	Wetness, droughty, rooting depth.
37 Pickford	Slight	Severe: hard to pack, ponding.	Severe: slow refill.	Ponding, percs slowly.	Ponding	Wetness, erodes easily.
38B Froberg	Moderate: seepage, slope.	Severe: piping.	Severe: no water.	Deep to water	Percs slowly, slope.	Erodes easily.

See footnote at end of table.

TABLE 14.--WATER MANAGEMENT--Continued

Soil name and map symbol	Limitations for-- Pond reservoir areas	Embankments, dikes, and levees	Aquifer-fed excavated ponds	Features affecting-- Drainage	Irrigation	Grassed waterways
39B*:						
Munising	Moderate: seepage, slope.	Severe: seepage, piping.	Severe: no water.	Percs slowly, slope, cutbanks cave.	Slope, wetness, droughty.	Wetness, droughty.
Skanee	Moderate: seepage.	Severe: piping, wetness.	Severe: no water.	Percs slowly, frost action.	Wetness, droughty, fast intake.	Wetness, droughty, rooting depth.
43A Moquah	Moderate: seepage.	Severe: seepage, piping.	Severe: slow refill, cutbanks cave.	Deep to water	Flooding	Favorable.
44B*:						
Michigamme	Moderate: seepage, depth to rock, slope.	Severe: piping, large stones.	Severe: no water.	Thin layer, large stones, slope.	Slope, large stones, wetness.	Large stones, wetness.
Rock outcrop.						
44D*:						
Michigamme	Severe: slope.	Severe: piping, large stones.	Severe: no water.	Thin layer, large stones, slope.	Slope, large stones, wetness.	Large stones, wetness, slope.
Rock outcrop.						
44E*, 44F*:						
Michigamme	Severe: slope.	Severe: piping, large stones.	Severe: no water.	Deep to water	Slope, large stones, droughty.	Large stones, slope, droughty.
Rock outcrop.						
47B Yalmer	Severe: seepage.	Severe: piping.	Severe: no water.	Percs slowly, slope, cutbanks cave.	Slope, wetness, droughty.	Droughty, rooting depth.
48B Rousseau	Severe: seepage.	Severe: seepage, piping.	Severe: no water.	Deep to water	Slope, droughty, fast intake.	Droughty.
49 Gay	Moderate: seepage.	Severe: ponding.	Severe: cutbanks cave.	Ponding, frost action.	Ponding, droughty, soil blowing.	Wetness, droughty, rooting depth.
50B Abbaye	Moderate: seepage, depth to rock, slope.	Severe: piping.	Severe: no water.	Deep to water	Slope, droughty, fast intake.	Droughty, depth to rock.
50D Abbaye	Severe: slope.	Severe: piping.	Severe: no water.	Deep to water	Slope, droughty, fast intake.	Slope, droughty, depth to rock.
51A Zeba	Moderate: seepage, depth to rock.	Severe: seepage, piping, wetness.	Severe: depth to rock, cutbanks cave.	Thin layer, frost action, cutbanks cave.	Wetness, droughty.	Wetness, droughty, depth to rock.

See footnote at end of table.

TABLE 14.--WATER MANAGEMENT--Continued

Soil name and map symbol	Limitations for-- Pond reservoir areas	Embankments, dikes, and levees	Aquifer-fed excavated ponds	Features affecting-- Drainage	Irrigation	Grassed waterways
52---------- Gay Variant	Moderate: seepage, depth to rock.	Severe: piping, ponding.	Severe: depth to rock, cutbanks cave.	Ponding, depth to rock, frost action.	Ponding, droughty.	Large stones, wetness, droughty.
53B---------- Onota Variant	Severe: depth to rock, seepage.	Severe: seepage.	Severe: no water.	Deep to water	Droughty, fast intake, thin layer.	Large stones, droughty, depth to rock.
54B---------- Waiska	Severe: seepage.	Severe: seepage.	Severe: no water.	Deep to water	Slope, droughty, fast intake.	Droughty.
54D---------- Waiska	Severe: seepage, slope.	Severe: seepage.	Severe: no water.	Deep to water	Slope, droughty, fast intake.	Slope, droughty.
56A---------- Deerton Variant	Severe: seepage.	Severe: seepage, piping, wetness.	Severe: depth to rock, cutbanks cave.	Thin layer, cutbanks cave.	Wetness, droughty, fast intake.	Wetness, droughty, depth to rock.
57A*:						
Assinins---------	Moderate: seepage.	Severe: piping, wetness.	Severe: slow refill, cutbanks cave.	Frost action---	Wetness, droughty, fast intake.	Wetness, droughty, erodes easily.
Skanee----------	Moderate: seepage.	Severe: piping, wetness.	Severe: no water.	Percs slowly, frost action.	Wetness, droughty, fast intake.	Wetness, droughty, rooting depth.
59B---------- Amasa	Severe: seepage.	Severe: seepage, large stones.	Severe: no water.	Deep to water	Large stones, droughty, slope.	Large stones, erodes easily.
59D, 59E, 59F----- Amasa	Severe: seepage, slope.	Severe: seepage, large stones.	Severe: no water.	Deep to water	Large stones, droughty, slope.	Large stones, slope, erodes easily.
60B---------- Fence	Moderate: slope.	Severe: piping.	Severe: no water.	Deep to water	Slope, erodes easily.	Erodes easily.
61B---------- Ishpeming	Severe: seepage.	Severe: seepage, piping.	Severe: no water.	Deep to water	Slope, droughty, fast intake.	Droughty, depth to rock.
61D---------- Ishpeming	Severe: seepage, slope.	Severe: seepage, piping.	Severe: no water.	Deep to water	Slope, droughty, fast intake.	Slope, droughty, depth to rock.
62*. Beaches						
64*. Pits						
65B---------- Ocqueoc	Severe: seepage.	Severe: piping.	Severe: no water.	Deep to water	Slope, droughty, fast intake.	Droughty, rooting depth.
66B*:						
Champion---------	Severe: seepage.	Severe: seepage, large stones.	Severe: no water.	Percs slowly, slope, cutbanks cave.	Slope, large stones, wetness.	Large stones, wetness.

See footnote at end of table.

TABLE 14.--WATER MANAGEMENT--Continued

Soil name and map symbol	Limitations for-- Pond reservoir areas	Embankments, dikes, and levees	Aquifer-fed excavated ponds	Features affecting-- Drainage	Irrigation	Grassed waterways
66B*:						
Net	Severe: seepage.	Severe: seepage, wetness.	Severe: no water.	Percs slowly, frost action, cutbanks cave.	Large stones, wetness, droughty.	Large stones, wetness, droughty.
67*:						
Witbeck	Moderate: seepage.	Severe: piping, large stones, ponding.	Severe: slow refill.	Ponding, frost action.	Large stones, ponding, droughty.	Large stones, wetness, droughty.
Tacoosh	Severe: seepage.	Severe: excess humus, ponding.	Severe: slow refill.	Ponding, subsides, frost action.	Ponding, soil blowing.	Wetness.
68B Amasa	Severe: seepage.	Severe: seepage.	Severe: no water.	Deep to water	Soil blowing, slope, erodes easily.	Erodes easily.
68D Amasa	Severe: seepage, slope.	Severe: seepage.	Severe: no water.	Deep to water	Soil blowing, slope, erodes easily.	Slope, erodes easily.
69E*, 69F*:						
Yalmer	Severe: seepage, slope.	Severe: piping.	Severe: no water.	Deep to water	Slope, droughty, fast intake.	Slope, droughty, rooting depth.
Munising	Severe: slope.	Severe: seepage, piping.	Severe: no water.	Deep to water	Slope, droughty, fast intake.	Slope, droughty, rooting depth.
70 Winterfield	Severe: seepage.	Severe: seepage, piping, wetness.	Severe: cutbanks cave.	Flooding, cutbanks cave.	Wetness, droughty.	Wetness, droughty.
71A Pelkie	Severe: seepage.	Severe: seepage, piping.	Severe: cutbanks cave.	Flooding, cutbanks cave.	Wetness, droughty.	Droughty.
72 Sturgeon	Severe: seepage.	Severe: seepage, piping, wetness.	Severe: cutbanks cave.	Flooding, frost action, cutbanks cave.	Wetness	Wetness, erodes easily.
73 Arnheim	Moderate: seepage.	Severe: seepage, piping, wetness.	Severe: cutbanks cave.	Flooding, frost action, cutbanks cave.	Wetness, droughty.	Wetness, erodes easily, droughty.
74B Waiska Variant	Severe: seepage.	Severe: seepage.	Severe: no water.	Deep to water	Droughty, fast intake.	Large stones, droughty.
75D Fence	Severe: slope.	Severe: piping.	Severe: no water.	Deep to water	Slope, erodes easily.	Slope, erodes easily.
76A Allendale	Severe: seepage.	Severe: hard to pack, wetness.	Severe: slow refill, cutbanks cave.	Percs slowly	Wetness, droughty.	Wetness, droughty, rooting depth.

See footnote at end of table.

TABLE 14.--WATER MANAGEMENT--Continued

Soil name and map symbol	Limitations for-- Pond reservoir areas	Embankments, dikes, and levees	Aquifer-fed excavated ponds	Features affecting-- Drainage	Irrigation	Grassed waterways
77A*:						
Udipsamments.						
Udorthents.						
78B*:						
Champion	Severe: seepage.	Severe: seepage, large stones.	Severe: no water.	Percs slowly, slope, cutbanks cave.	Slope, large stones, wetness.	Large stones, wetness.
Michigamme	Moderate: seepage, depth to rock, slope.	Severe: piping, large stones.	Severe: no water.	Thin layer, large stones, slope.	Slope, large stones, wetness.	Large stones, wetness.
78D*:						
Champion	Severe: slope, seepage.	Severe: seepage, large stones.	Severe: no water.	Percs slowly, slope, cutbanks cave.	Slope, large stones, wetness.	Large stones, wetness, slope.
Michigamme	Severe: slope.	Severe: piping, large stones.	Severe: no water.	Thin layer, large stones, slope.	Slope, large stones, wetness.	Large stones, wetness, slope.
78E*:						
Champion	Severe: slope, seepage.	Severe: seepage, large stones.	Severe: no water.	Deep to water	Slope, large stones, droughty.	Large stones, slope, droughty.
Michigamme	Severe: slope.	Severe: piping, large stones.	Severe: no water.	Deep to water	Slope, large stones, droughty.	Large stones, slope, droughty.
79B Nunica	Moderate: seepage, slope.	Severe: piping.	Severe: no water.	Deep to water	Slope, erodes easily.	Erodes easily.
79D Nunica	Severe: slope.	Severe: piping.	Severe: no water.	Deep to water	Slope, erodes easily.	Slope, erodes easily.
80A Bowers	Slight	Severe: wetness.	Severe: slow refill.	Frost action	Wetness	Wetness.
81A Burt Variant	Severe: depth to rock, seepage.	Severe: seepage, wetness.	Severe: depth to rock, cutbanks cave.	Thin layer, cutbanks cave.	Wetness, droughty, fast intake.	Large stones, wetness, droughty.
82 Roscommon Variant	Severe: seepage.	Severe: seepage, piping, ponding.	Severe: depth to rock, cutbanks cave.	Ponding, thin layer, cutbanks cave.	Ponding, droughty, fast intake.	Wetness, droughty, depth to rock.
83E*:						
Nunica	Severe: slope.	Severe: piping.	Severe: no water.	Deep to water	Slope, erodes easily.	Slope, erodes easily.
Ontonagon	Severe: slope.	Severe: hard to pack.	Severe: no water.	Deep to water	Percs slowly, slope.	Slope, percs slowly.

See footnote at end of table.

TABLE 14.--WATER MANAGEMENT--Continued

Soil name and map symbol	Limitations for-- Pond reservoir areas	Embankments, dikes, and levees	Aquifer-fed excavated ponds	Features affecting-- Drainage	Irrigation	Grassed waterways
84A---------- Channing	Severe: seepage.	Severe: seepage, wetness.	Severe: cutbanks cave.	Frost action, cutbanks cave.	Wetness, droughty, soil blowing.	Wetness, droughty.
86A*:						
Net----------	Severe: seepage.	Severe: seepage, wetness.	Severe: no water.	Percs slowly, frost action, cutbanks cave.	Large stones, wetness, droughty.	Large stones, wetness, droughty.
Witbeck----------	Moderate: seepage.	Severe: piping, large stones, ponding.	Severe: slow refill.	Ponding, frost action.	Large stones, ponding, droughty.	Large stones, wetness, droughty.
87A*:						
Skanee----------	Moderate: seepage.	Severe: piping, wetness.	Severe: no water.	Percs slowly, frost action.	Wetness, droughty, fast intake.	Wetness, droughty, rooting depth.
Gay----------	Moderate: seepage.	Severe: ponding.	Severe: cutbanks cave.	Ponding, frost action.	Ponding, droughty, soil blowing.	Wetness, droughty, rooting depth.
88B*:						
Munising---------	Moderate: seepage, slope.	Severe: seepage, piping.	Severe: no water.	Percs slowly, slope, cutbanks cave.	Slope, wetness, droughty.	Wetness, droughty.
Yalmer----------	Severe: seepage.	Severe: piping.	Severe: no water.	Percs slowly, slope, cutbanks cave.	Slope, wetness, droughty.	Droughty, rooting depth.
88D*:						
Munising---------	Severe: slope.	Severe: seepage, piping.	Severe: no water.	Deep to water	Slope, droughty, fast intake.	Slope, droughty, rooting depth.
Yalmer----------	Severe: seepage, slope.	Severe: piping.	Severe: no water.	Deep to water	Slope, droughty, fast intake.	Slope, droughty, rooting depth.
88E*:						
Yalmer----------	Severe: seepage, slope.	Severe: piping.	Severe: no water.	Deep to water	Slope, droughty, fast intake.	Slope, droughty, rooting depth.
Munising---------	Severe: slope.	Severe: seepage, piping.	Severe: no water.	Deep to water	Slope, droughty, fast intake.	Slope, droughty, rooting depth.
91B*:						
Keweenaw---------	Severe: seepage.	Severe: seepage, piping.	Severe: no water.	Deep to water	Slope, droughty, fast intake.	Large stones, droughty.
Kalkaska---------	Severe: seepage.	Severe: seepage, piping.	Severe: no water.	Deep to water	Slope, droughty, fast intake.	Droughty.

See footnote at end of table.

TABLE 14.--WATER MANAGEMENT--Continued

Soil name and map symbol	Limitations for-- Pond reservoir areas	Embankments, dikes, and levees	Aquifer-fed excavated ponds	Features affecting-- Drainage	Irrigation	Grassed waterways
91D*, 91E*:						
Keweenaw	Severe: seepage, slope.	Severe: seepage, piping.	Severe: no water.	Deep to water	Slope, droughty, fast intake.	Large stones, slope, droughty.
Kalkaska	Severe: seepage, slope.	Severe: seepage, piping.	Severe: no water.	Deep to water	Slope, droughty, fast intake.	Slope, droughty.
92B*:						
Keweenaw	Severe: seepage.	Severe: seepage, piping.	Severe: no water.	Deep to water	Slope, droughty, fast intake.	Large stones, droughty.
Kalkaska	Severe: seepage.	Severe: seepage, piping.	Severe: no water.	Deep to water	Slope, droughty, fast intake.	Droughty.
92D*, 92E*:						
Keweenaw	Severe: seepage, slope.	Severe: seepage, piping.	Severe: no water.	Deep to water	Slope, droughty, fast intake.	Large stones, slope, droughty.
Kalkaska	Severe: seepage, slope.	Severe: seepage, piping.	Severe: no water.	Deep to water	Slope, droughty, fast intake.	Slope, droughty.
93B*:						
Deerton	Severe: seepage.	Severe: seepage, piping.	Severe: no water.	Deep to water	Slope, droughty, fast intake.	Droughty, area reclaim.
Abbaye	Moderate: seepage, depth to rock, slope.	Severe: piping.	Severe: no water.	Deep to water	Slope, droughty, fast intake.	Droughty, depth to rock.
93D*:						
Deerton	Severe: seepage, slope.	Severe: seepage, piping.	Severe: no water.	Deep to water	Slope, droughty, fast intake.	Slope, droughty, area reclaim.
Abbaye	Severe: slope.	Severe: piping.	Severe: no water.	Deep to water	Slope, droughty, fast intake.	Slope, droughty, depth to rock.
94B Deerton	Severe: seepage.	Severe: seepage, piping.	Severe: no water.	Deep to water	Slope, droughty, fast intake.	Droughty, area reclaim.
95B Amasa	Severe: seepage.	Severe: seepage, piping.	Severe: no water.	Deep to water	Soil blowing, slope, erodes easily.	Erodes easily.
95D Amasa	Severe: seepage, slope.	Severe: seepage, piping.	Severe: no water.	Deep to water	Soil blowing, slope, erodes easily.	Slope, erodes easily.
96A Richter Variant	Slight	Severe: piping, wetness.	Severe: slow refill, cutbanks cave.	Frost action, cutbanks cave.	Wetness, droughty.	Wetness, droughty.

See footnote at end of table.

TABLE 14.--WATER MANAGEMENT--Continued

Soil name and map symbol	Limitations for-- Pond reservoir areas	Embankments, dikes, and levees	Aquifer-fed excavated ponds	Features affecting-- Drainage	Irrigation	Grassed waterways
98A*:						
Burt Variant	Severe: depth to rock, seepage.	Severe: seepage, wetness.	Severe: depth to rock, cutbanks cave.	Thin layer, cutbanks cave.	Wetness, droughty, fast intake.	Large stones, wetness, droughty.
Burt	Severe: depth to rock, seepage.	Severe: seepage, piping, ponding.	Severe: depth to rock, cutbanks cave.	Ponding, thin layer, cutbanks cave.	Ponding, fast intake.	Wetness, depth to rock.
99B*:						
Rubicon	Severe: seepage.	Severe: seepage, piping.	Severe: no water.	Deep to water	Slope, droughty, fast intake.	Droughty.
Rousseau	Severe: seepage.	Severe: seepage, piping.	Severe: no water.	Deep to water	Slope, droughty, fast intake.	Droughty.
Ocqueoc	Severe: seepage.	Severe: piping.	Severe: no water.	Deep to water	Slope, droughty, fast intake.	Droughty, rooting depth.
99D*:						
Rubicon	Severe: seepage, slope.	Severe: seepage, piping.	Severe: no water.	Deep to water	Slope, droughty, fast intake.	Slope, droughty.
Rousseau	Severe: seepage, slope.	Severe: seepage, piping.	Severe: no water.	Deep to water	Slope, droughty, fast intake.	Slope, droughty.
Ocqueoc	Severe: seepage, slope.	Severe: piping.	Severe: no water.	Deep to water	Slope, droughty, fast intake.	Slope, droughty, rooting depth.
100B Amasa	Severe: seepage.	Severe: seepage, large stones.	Severe: no water.	Deep to water	Large stones, droughty, slope.	Large stones, erodes easily.
100D, 100E Amasa	Severe: seepage, slope.	Severe: seepage, large stones.	Severe: no water.	Deep to water	Large stones, droughty, slope.	Large stones, slope, erodes easily.
101E*, 101F*:						
Peshekee	Severe: depth to rock, seepage, slope.	Severe: piping, large stones, thin layer.	Severe: no water.	Deep to water	Slope, large stones, droughty.	Large stones, slope, droughty.
Rock outcrop.						
102A Channing	Severe: seepage.	Severe: seepage, wetness.	Severe: cutbanks cave.	Frost action, cutbanks cave.	Large stones, wetness, droughty.	Large stones, wetness, droughty.
105*:						
Pits.						
Dumps.						

See footnote at end of table.

TABLE 14.--WATER MANAGEMENT--Continued

Soil name and map symbol	Limitations for-- Pond reservoir areas	Embankments, dikes, and levees	Aquifer-fed excavated ponds	Features affecting-- Drainage	Irrigation	Grassed waterways
106B---------- Yalmer	Severe: seepage.	Severe: piping.	Severe: no water.	Percs slowly, slope, cutbanks cave.	Slope, wetness, droughty.	Droughty, rooting depth.
107F*:						
Rousseau---------	Severe: seepage, slope.	Severe: seepage, piping.	Severe: no water.	Deep to water	Slope, droughty, fast intake.	Slope, droughty.
Ocqueoc----------	Severe: seepage, slope.	Severe: piping.	Severe: no water.	Deep to water	Slope, droughty, fast intake.	Slope, droughty, rooting depth.
108B*:						
Champion---------	Severe: seepage.	Severe: seepage, large stones.	Severe: no water.	Percs slowly, slope, cutbanks cave.	Slope, large stones, wetness.	Large stones, wetness.
Net----------	Severe: seepage.	Severe: seepage, wetness.	Severe: no water.	Percs slowly, frost action, cutbanks cave.	Large stones, wetness, droughty.	Large stones, wetness, droughty.
Michigamme-------	Moderate: seepage, depth to rock, slope.	Severe: piping, large stones.	Severe: no water.	Thin layer, large stones, slope.	Slope, large stones, wetness.	Large stones, wetness.
109F*:						
Rousseau---------	Severe: seepage, slope.	Severe: seepage, piping.	Severe: no water.	Deep to water	Slope, droughty, fast intake.	Slope, droughty.
Fence----------	Severe: slope.	Severe: piping.	Severe: no water.	Deep to water	Slope, erodes easily.	Slope, erodes easily.
Ocqueoc----------	Severe: seepage, slope.	Severe: piping.	Severe: no water.	Deep to water	Slope, droughty, fast intake.	Slope, droughty, rooting depth.
110E*:						
Ishpeming--------	Severe: seepage, slope.	Severe: seepage, piping.	Severe: no water.	Deep to water	Slope, droughty, fast intake.	Slope, droughty, depth to rock.
Rock outcrop.						
111B*:						
Yalmer----------	Severe: seepage.	Severe: piping.	Severe: no water.	Percs slowly, slope, cutbanks cave.	Slope, wetness, droughty.	Droughty, rooting depth.
Assinins---------	Moderate: seepage.	Severe: piping, wetness.	Severe: slow refill, cutbanks cave.	Frost action---	Wetness, droughty, fast intake.	Wetness, droughty, erodes easily.
112A---------- Assinins	Moderate: seepage.	Severe: piping, wetness.	Severe: slow refill, cutbanks cave.	Frost action---	Wetness, droughty, fast intake.	Wetness, droughty, erodes easily.

See footnote at end of table.

TABLE 14.--WATER MANAGEMENT--Continued

Soil name and map symbol	Limitations for-- Pond reservoir areas	Embankments, dikes, and levees	Aquifer-fed excavated ponds	Features affecting-- Drainage	Irrigation	Grassed waterways
113B---------- Petticoat	Severe: seepage.	Severe: piping, large stones.	Severe: no water.	Deep to water	Large stones, slope.	Large stones, erodes easily.
113D---------- Petticoat	Severe: seepage, slope.	Severe: piping, large stones.	Severe: no water.	Deep to water	Large stones, slope.	Large stones, slope, erodes easily.
114B---------- Peshekee Variant	Severe: depth to rock, seepage.	Severe: piping, large stones, thin layer.	Severe: no water.	Deep to water	Slope, large stones, thin layer.	Large stones, depth to rock.
114E---------- Peshekee Variant	Severe: depth to rock, seepage, slope.	Severe: piping, large stones, thin layer.	Severe: no water.	Deep to water	Slope, large stones, thin layer.	Large stones, slope, depth to rock.
115D*:						
Munising---------	Severe: slope.	Severe: seepage, piping.	Severe: no water.	Percs slowly, slope, cutbanks cave.	Slope, wetness, droughty.	Wetness, slope, droughty.
Michigamme-------	Severe: slope.	Severe: piping, large stones.	Severe: no water.	Thin layer, large stones, slope.	Slope, large stones, wetness.	Large stones, wetness, slope.
115E*:						
Munising---------	Severe: slope.	Severe: seepage, piping.	Severe: no water.	Deep to water	Slope, droughty.	Slope, droughty, rooting depth.
Michigamme-------	Severe: slope.	Severe: piping, large stones.	Severe: no water.	Deep to water	Slope, large stones, droughty.	Large stones, slope, droughty.
116F*:						
Udorthents.						
Udipsamments.						

* See description of the map unit for composition and behavior characteristics of the map unit.

TABLE 15.--ENGINEERING INDEX PROPERTIES

(The symbol < means less than; > means more than. Absence of an entry indicates that data were not estimated)

Soil name and map symbol	Depth	USDA texture	Classification: Unified	Classification: AASHTO	Fragments > 3 inches	Percentage passing sieve number--: 4	10	40	200	Liquid limit	Plasticity index
	In				Pct					Pct	
10B, 10D--------- Watton	0-16	Silt loam, loam	ML, CL, CL-ML	A-4	0-10	95-100	90-100	75-100	55-90	20-30	NP-10
	16-43	Silty clay loam, clay loam, loam.	CL	A-6, A-7	0-10	95-100	90-100	75-100	55-95	32-50	14-30
	43-60	Silty clay loam, clay loam, silt loam.	CL	A-6, A-7	0-10	95-100	90-100	75-100	55-95	25-50	11-25
11A---------- Alstad	0-7	Silt loam--------	CL, CL-ML, ML	A-4	0	95-100	95-100	80-100	55-100	<28	3-9
	7-10	Silt loam, loam, sandy loam.	ML, CL, SM, SC	A-2, A-4	0	95-100	95-100	55-100	25-100	<26	2-8
	10-18	Loam, silt loam, clay loam.	CL, SC	A-4, A-6, A-7	0	80-100	75-100	65-100	45-95	25-45	9-27
	18-40	Clay loam, loam	CL, SC	A-6, A-4, A-2, A-7	0	80-100	75-100	60-100	25-80	20-45	9-28
	40-60	Loam, clay loam	SC, CL, ML	A-6, A-4, A-2	0-3	80-100	75-100	45-95	20-75	<35	2-20
12---------- Alstad Variant	0-6	Mucky silt loam	ML	A-4	0-10	95-100	85-100	75-100	55-90	---	NP
	6-60	Silt loam, silty clay loam, clay loam.	CL	A-6	0-10	95-100	85-100	75-100	55-95	20-40	10-25
13B, 13D--------- Grayling	0-25	Sand----------	SM, SP-SM	A-1, A-2, A-3	0	100	90-100	35-65	5-15	---	NP
	25-60	Sand----------	SP, SP-SM	A-1, A-3, A-2	0	100	90-100	40-55	0-10	---	NP
14B, 14D, 14E, 14F---------- Rubicon	0-7	Sand----------	SM, SP-SM, SP	A-2, A-3	0	95-100	90-100	50-90	0-25	---	NP
	7-13	Sand----------	SM, SP-SM, SP	A-2, A-3	0	95-100	90-100	50-90	0-25	---	NP
	13-60	Sand, coarse sand	SP, SP-SM, SM	A-1, A-2, A-3	0	95-100	90-100	40-90	0-25	---	NP
15B, 15D, 15E---- Champion	0-4	Cobbly silt loam	SM, ML	A-2-4, A-4	20-50	95-100	85-100	55-100	30-90	<20	NP-4
	4-21	Cobbly silt loam, silt loam, fine sandy loam.	SM, CL-ML, ML, SM-SC	A-2-4, A-4	0-50	95-100	85-100	55-100	30-90	<25	NP-7
	21-53	Gravelly fine sandy loam, gravelly sandy loam, gravelly loamy sand.	SM, SM-SC, SP-SM	A-2-4, A-4, A-1-b, A-3	0-20	75-100	50-80	25-70	5-45	<25	NP-6
	53-60	Gravelly fine sandy loam, gravelly sandy loam, gravelly loamy sand.	SM, SM-SC, SP-SM	A-2-4, A-1-b, A-3	0-20	80-100	50-80	25-55	5-35	<25	NP-6
16A---------- Croswell	0-6	Sand----------	SP-SM, SM, SP	A-3, A-2-4	0	90-100	85-100	50-95	0-25	---	NP
	6-17	Sand----------	SP-SM, SM, SP	A-3, A-2-4	0	90-100	85-100	50-95	0-25	---	NP
	17-60	Sand----------	SP-SM, SM, SP	A-3, A-2-4, A-1-b	0	90-100	85-100	45-95	0-25	---	NP

TABLE 15.--ENGINEERING INDEX PROPERTIES--Continued

Soil name and map symbol	Depth	USDA texture	Classification: Unified	Classification: AASHTO	Frag- ments > 3 inches	Percentage passing sieve number--: 4	10	40	200	Liquid limit	Plas- ticity index
	In				Pct					Pct	
17A---------- Au Gres	0-8	Sand----------	SP, SM, SP-SM	A-2-4, A-3	0	95-100	85-100	50-95	0-25	---	NP
	8-19	Sand----------	SP-SM, SP, SM	A-2-4, A-3	0	95-100	85-100	60-95	0-25	---	NP
	19-60	Sand----------	SP, SP-SM, SM	A-3, A-2-4, A-1-b	0	95-100	85-100	45-95	0-25	---	NP
18---------- Kinross	0-12	Mucky sand-------	SP-SM, SM, SP	A-3, A-2-4	0	100	100	50-95	0-25	---	NP
	12-60	Sand----------	SP-SM, SM, SP	A-3, A-2-4	0	100	95-100	50-95	0-25	---	NP
19*:											
Dawson----------	0-4	Fibric material	PT	A-8	---	---	---	---	---	---	---
	4-44	Sapric material	PT	A-8	---	---	---	---	---	---	---
	44-60	Sand, loamy fine sand, gravelly sand.	SM-SC, SM, SC, SP-SM	A-2, A-3, A-1	0	90-100	50-100	25-90	0-30	<20	NP-10
Greenwood-------	0-10	Fibric material	PT	A-8	0	---	---	---	---	---	---
	10-60	Hemic material---	PT	A-8	0	---	---	---	---	---	---
20*:											
Carbondale------	0-30	Sapric material	PT	A-8	0	---	---	---	---	---	---
	30-60	Hemic material---	PT	A-8	0	---	---	---	---	---	---
Tacoosh---------	0-8	Sapric material	PT	A-8	---	---	---	---	---	---	---
	8-31	Hemic material---	PT	A-8	---	---	---	---	---	---	---
	31-60	Very fine sandy loam, silt loam, clay loam.	SM, ML, CL-ML, CL	A-2, A-4, A-6	0-10	85-100	85-95	65-95	25-75	15-35	NP-20
21B---------- Allouez	0-4	Gravelly coarse sandy loam.	GM, SM, GM-GC, SM-SC	A-1-b, A-2-4, A-4	15-25	60-90	50-80	30-55	15-50	<25	NP-7
	4-11	Gravelly sandy loam, gravelly loam, very gravelly coarse sandy loam.	GC, GM-GC, GM, SM	A-2, A-4, A-1-b	15-25	60-95	50-80	30-75	15-40	<25	NP-10
	11-60	Extremely gravelly coarse sand, gravelly sand, extremely gravelly sand.	GW, GP, SP, GP-GM	A-1	15-50	25-95	20-65	10-45	0-10	---	NP
23B*, 23D*:											
Munising--------	0-9	Loamy sand-------	SM, SP-SM	A-2-4, A-1-b	0-5	95-100	85-100	40-75	10-30	<20	NP-4
	9-21	Sandy loam, fine sandy loam.	SM, ML, SM-SC, CL-ML	A-4, A-2-4	0-5	95-100	85-100	50-85	25-55	<25	NP-6
	21-48	Sandy loam, loamy sand.	SM, SC, SP-SM, SM-SC	A-2, A-6, A-4, A-1-b	0-5	95-100	85-100	40-75	10-40	15-35	NP-15
	48-80	Sandy loam, sandy clay loam, fine sandy loam.	SM, SC, CL, ML	A-2, A-6, A-4	0-5	95-100	85-100	50-90	25-55	15-35	NP-15

See footnote at end of table.

TABLE 15.--ENGINEERING INDEX PROPERTIES--Continued

Soil name and map symbol	Depth	USDA texture	Classification: Unified	Classification: AASHTO	Fragments > 3 inches	Percentage passing sieve number--: 4	10	40	200	Liquid limit	Plasticity index
	In				Pct					Pct	
23B*, 23D*:											
Yalmer----------	0-23	Loamy sand, sand, fine sand.	SP-SM, SM	A-2, A-1-b	0-2	95-100	75-100	35-75	10-30	---	NP
	23-39	Loamy fine sand, fine sandy loam.	SM, SM-SC, SP-SM	A-2, A-1-b, A-4	0-4	95-100	80-100	40-75	10-40	<25	NP-7
	39-70	Fine sandy loam, loamy fine sand.	SM, SC, SM-SC	A-2, A-4, A-1-b	0-4	95-100	75-100	45-70	20-40	<27	NP-8
24B, 24D--------- Munising	0-9	Loamy sand-------	SM, SP-SM	A-2-4, A-1-b	0-5	95-100	85-100	40-75	10-30	<20	NP-4
	9-21	Sandy loam, fine sandy loam.	SM, ML, SM-SC, CL-ML	A-4, A-2-4	0-5	95-100	85-100	50-85	25-55	<25	NP-6
	21-48	Sandy loam, loamy sand.	SM, SC, SP-SM, SM-SC	A-2, A-6, A-4, A-1-b	0-5	95-100	85-100	40-75	10-40	15-35	NP-15
	48-80	Sandy loam, sandy clay loam, fine sandy loam.	SM, SC, CL, ML	A-2, A-6, A-4	0-5	95-100	85-100	50-90	25-55	15-35	NP-15
25A---------- Net	0-3	Silt loam--------	ML, SM, CL-ML, SM-SC	A-4, A-2-4	30-50	95-100	85-95	35-95	30-90	<20	NP-6
	3-23	Gravelly silt loam, fine sandy loam, very fine sandy loam.	ML, SM, CL-ML, SM-SC	A-4, A-1-b, A-2-4	5-25	75-100	55-95	40-95	20-85	<20	NP-6
	23-39	Gravelly sandy loam, gravelly loamy sand, gravelly fine sandy loam.	SM, SM-SC, SP-SM	A-2-4, A-4, A-1-b, A-3	5-25	75-100	55-80	25-70	5-45	<20	NP-4
	39-60	Gravelly sandy loam, gravelly loamy sand, gravelly fine sandy loam.	SM, SM-SC, SP-SM	A-2-4, A-4, A-1-b, A-3	5-25	75-100	55-80	25-70	5-45	<20	NP-6
26---------- Witbeck	0-6	Muck----------	PT	A-8	45-70	---	---	---	---	---	---
	6-10	Silt loam, mucky silt loam.	ML, CL, CL-ML	A-4, A-6	45-70	90-100	85-100	75-100	60-90	<35	NP-15
	10-22	Fine sandy loam, very fine sandy loam, gravelly loam.	SM, ML, CL, SC	A-2-4, A-4, A-1-b	0-25	75-95	65-95	40-95	20-70	<30	NP-10
	22-60	Very fine sandy loam, gravelly fine sandy loam, gravelly loam.	SM, ML, CL, SC	A-2-4, A-4, A-1-b	0-25	75-95	65-95	40-95	20-70	<30	NP-10
27B---------- Munising	0-9	Loamy sand-------	SM, SP-SM	A-2-4, A-1-b	0-5	95-100	85-100	40-75	10-30	<20	NP-4
	9-21	Sandy loam, fine sandy loam.	SM, ML, SM-SC, CL-ML	A-4, A-2-4	0-5	95-100	85-100	50-85	25-55	<25	NP-6
	21-48	Sandy loam, loamy sand.	SM, SC, SP-SM, SM-SC	A-2, A-6, A-4, A-1-b	0-5	95-100	85-100	40-75	10-40	15-35	NP-15
	48-80	Sandy loam, sandy clay loam, fine sandy loam.	SM, SC, CL, ML	A-2, A-6, A-4	0-5	95-100	85-100	50-90	25-55	15-35	NP-15

See footnote at end of table.

TABLE 15.--ENGINEERING INDEX PROPERTIES--Continued

Soil name and map symbol	Depth	USDA texture	Classification: Unified	Classification: AASHTO	Frag- ments > 3 inches	Percentage passing sieve number--: 4	10	40	200	Liquid limit	Plas- ticity index
	In				Pct					Pct	
29D*:											
Grayling--------	0-25	Sand----------	SM, SP-SM	A-1, A-2, A-3	0	100	90-100	35-65	5-15	---	NP
	25-60	Sand----------	SP, SP-SM	A-1, A-3, A-2	0	100	90-100	40-55	0-10	---	NP
Kinross---------	0-12	Mucky sand-------	SP-SM, SM, SP	A-3, A-2-4	0	100	100	50-95	0-25	---	NP
	12-60	Sand, fine sand	SP-SM, SM, SP	A-3, A-2-4	0	100	95-100	50-95	0-25	---	NP
30B, 30D, 30E, 30F---------- Kalkaska	0-9	Sand----------	SM, SP-SM	A-1, A-2, A-3	0	100	95-100	40-70	5-15	---	NP
	9-19	Sand----------	SM, SP-SM	A-1, A-2, A-3	0	95-100	90-100	40-75	5-15	---	NP
	19-60	Sand----------	SP, SP-SM	A-1, A-2, A-3	0	100	95-100	40-80	0-10	---	NP
31B, 31D--------- Kallio	0-5	Cobbly silt loam	ML, SM, CL-ML, SM-SC	A-2-4, A-4	20-40	95-100	85-100	55-95	30-85	<25	NP-7
	5-16	Silt loam, very fine sandy loam, fine sandy loam.	ML, SM, CL-ML, SM-SC	A-2-4, A-4	0-15	95-100	85-100	55-95	30-85	<25	NP-7
	16-34	Silt loam, fine sandy loam, silty clay loam.	ML, CL, SC, SM	A-4, A-6	0-15	95-100	85-100	60-95	35-90	10-40	NP-20
	34-60	Gravelly loam, loam, silty clay loam.	ML, CL, SC, SM	A-4, A-6	0-15	90-100	70-100	60-95	40-90	20-40	NP-20
32A*:											
Kinross---------	0-12	Mucky sand-------	SP-SM, SM, SP	A-3, A-2-4	0	100	100	50-95	0-25	---	NP
	12-60	Sand, fine sand	SP-SM, SM, SP	A-3, A-2-4	0	100	95-100	50-95	0-25	---	NP
Croswell--------	0-6	Sand----------	SP-SM, SM, SP	A-3, A-2-4	0	90-100	85-100	50-95	0-25	---	NP
	6-22	Sand----------	SP-SM, SM, SP	A-3, A-2-4	0	90-100	85-100	50-95	0-25	---	NP
	22-60	Sand----------	SP-SM, SM, SP	A-3, A-2-4, A-1-b	0	90-100	85-100	45-95	0-25	---	NP
34B---------- Ontonagon	0-7	Silt loam--------	CL-ML, CL	A-4, A-6	0	100	100	95-100	85-95	25-35	5-15
	7-34	Clay----------	CH	A-7	0	100	100	90-100	75-95	65-90	40-55
	34-60	Silty clay, clay	CH	A-7	0	100	100	90-100	75-95	65-90	40-55
35A---------- Rudyard	0-8	Silty clay loam	CL	A-7, A-6	0	100	100	95-100	85-95	35-45	11-20
	8-38	Clay----------	CH, MH	A-7	0	100	100	90-100	75-95	50-70	20-35
	38-70	Clay----------	CH, CL	A-7	0	100	100	90-100	75-95	41-70	20-40
36A---------- Skanee	0-8	Loamy sand-------	SM, SM-SC, SC, CL	A-2, A-4, A-1-b	0-4	95-100	85-100	45-85	10-55	<28	NP-10
	8-18	Fine sandy loam, sandy loam.	SM, SM-SC, SC, CL	A-2, A-4, A-6	0-4	95-100	85-100	55-85	25-55	12-38	2-19
	18-30	Sandy loam, loamy sand, sandy clay loam.	SM, SC, ML, CL	A-2, A-4, A-6, A-1-b	0-4	95-100	85-100	40-90	10-55	10-40	NP-21
	30-60	Sandy loam-------	SM, SM-SC, SC	A-2, A-4	0-4	95-100	85-100	50-70	25-40	15-22	3-8

See footnote at end of table.

TABLE 15.--ENGINEERING INDEX PROPERTIES--Continued

Soil name and map symbol	Depth	USDA texture	Classification: Unified	Classification: AASHTO	Frag- ments > 3 inches	Percentage passing sieve number--: 4	10	40	200	Liquid limit	Plas- ticity index
	In				Pct					Pct	
37---------- Pickford	0-9	Mucky silt loam, silty clay loam.	CL	A-4, A-6	0	100	100	85-100	60-90	25-40	7-15
	9-28	Clay, silty clay, silty clay loam.	CH, CL	A-7	0	100	100	90-100	75-95	42-70	21-42
	28-60	Clay, silty clay	CH, CL	A-7	0	100	100	90-100	75-95	42-70	29-45
38B---------- Froberg	0-7	Silt loam--------	CL	A-6, A-7	0	100	100	90-100	70-95	30-50	11-25
	7-28	Silty clay, clay	CH, MH	A-7	0	100	100	95-100	75-95	50-80	25-55
	28-60	Sandy loam, sandy clay loam.	CL, SC, SM-SC, CL-ML	A-2-4, A-4, A-6, A-2-6	0-5	95-100	95-100	55-90	25-55	20-35	7-16
39B*:											
Munising--------	0-9	Loamy sand-------	SM, SP-SM	A-2-4, A-1-b	0-5	95-100	85-100	40-75	10-30	<20	NP-4
	9-21	Sandy loam, fine sandy loam.	SM, ML, SM-SC, CL-ML	A-4, A-2-4	0-5	95-100	85-100	50-85	25-55	<25	NP-6
	21-48	Sandy loam, loamy sand.	SM, SC, SP-SM, SM-SC	A-2, A-6, A-4, A-1-b	0-5	95-100	85-100	40-75	10-40	15-35	NP-15
	48-80	Sandy loam, sandy clay loam, fine sandy loam.	SM, SC, CL, ML	A-2, A-6, A-4	0-5	95-100	85-100	50-90	25-55	15-35	NP-15
Skanee----------	0-8	Loamy sand-------	SM, SM-SC, SC, CL	A-2, A-4, A-1-b	0-4	95-100	85-100	45-85	10-55	<28	NP-10
	8-18	Fine sandy loam, sandy loam.	SM, SM-SC, SC, CL	A-2, A-4, A-6	0-4	95-100	85-100	55-85	25-55	12-38	2-19
	18-30	Sandy loam, loamy sand, sandy clay loam.	SM, SC, ML, CL	A-2, A-4, A-6, A-1-b	0-4	95-100	85-100	40-90	10-55	10-40	NP-21
	30-60	Sandy loam-------	SM, SM-SC, SC	A-2, A-4	0-4	95-100	85-100	50-70	25-40	15-22	3-8
43A---------- Moquah	0-3	Silt loam--------	CL, CL-ML, ML	A-4	0	100	100	85-100	60-90	20-30	3-10
	3-60	Stratified silt loam to sand.	ML, SM, SC, CL	A-2, A-4	0	100	100	65-100	15-70	<28	NP-9
44B*, 44D*, 44E*, 44F*:											
Michigamme-----	0-4	Cobbly silt loam	SM, ML	A-2-4, A-4, A-1-b	20-50	95-100	75-100	45-95	20-90	<20	NP-4
	4-24	Cobbly silt loam, silt loam, sandy loam.	SM, ML, SM-SC, CL-ML	A-2-4, A-4, A-1-b	0-50	95-100	75-100	45-95	20-90	<25	NP-7
	24-31	Cobbly fine sandy loam, gravelly fine sandy loam, loamy sand.	SM, SP-SM	A-2-4, A-4, A-1-b, A-3	0-30	75-100	50-95	25-80	5-50	<20	NP-4
	31	Unweathered bedrock.	---	---	---	---	---	---	---	---	---
Rock outcrop.											
47B---------- Yalmer	0-23	Loamy sand-------	SP-SM, SM	A-2, A-1-b	0-2	95-100	75-100	35-75	10-30	---	NP
	23-39	Loamy sand, fine sand.	SM, SM-SC, SP-SM	A-2, A-1-b, A-4	0-4	95-100	80-100	40-75	10-40	<25	NP-7
	39-70	Fine sandy loam, loamy fine sand.	SM, SC, SM-SC	A-2, A-4, A-1-b	0-4	95-100	75-100	45-70	20-40	<27	NP-8

See footnote at end of table.

TABLE 15.--ENGINEERING INDEX PROPERTIES--Continued

Soil name and map symbol	Depth	USDA texture	Classification: Unified	Classification: AASHTO	Frag- ments > 3 inches	Percentage passing sieve number--: 4	10	40	200	Liquid limit	Plas- ticity index
	In				Pct					Pct	
48B---------- Rousseau	0-4	Fine sand--------	SP-SM, SM	A-2-4, A-3	0	100	100	90-100	5-35	---	NP
	4-25	Fine sand--------	SP-SM, SM	A-3, A-2-4	0	100	100	90-100	5-25	---	NP
	25-60	Fine sand--------	SP, SP-SM	A-3	0	100	100	85-100	0-10	---	NP
49---------- Gay	0-7	Mucky fine sandy loam.	SM, SM-SC, SW-SM, SP-SM	A-2-4, A-4, A-1-b	0-2	95-100	85-100	40-80	10-50	<25	NP-7
	7-11	Loamy sand, sandy loam.	SM, SM-SC, SW-SM, SP-SM	A-2-4, A-4, A-1-b	0-2	95-100	85-100	40-75	10-40	<25	NP-7
	11-30	Sandy loam, sandy clay loam.	SM, SM-SC, SC	A-2-4, A-4	0-2	95-100	85-100	50-85	25-50	<30	2-10
	30-60	Sandy loam, sandy clay loam.	SM-SC, SC	A-2-4, A-4, A-2-6, A-6	0-2	95-100	85-100	50-85	25-50	20-35	4-15
50B, 50D--------- Abbaye	0-11	Loamy sand-------	SM, SM-SC, SP-SM	A-1-b, A-2-4	0-7	95-100	90-100	45-75	10-30	<25	2-7
	11-23	Sandy loam, fine sandy loam.	CL, CL-ML, SM-SC, SC	A-2-4, A-4	0-7	95-100	90-100	55-85	25-55	<25	4-10
	23-30	Sandy loam, loamy sand.	SM-SC, SC, SP-SC	A-2-4, A-4, A-1-b	0-7	95-100	90-100	45-75	10-40	<25	4-10
	30	Unweathered bedrock.	---	---	---	---	---	---	---	---	---
51A---------- Zeba	0-5	Sandy loam-------	SM, ML	A-2-4, A-4, A-1-b	0-15	90-100	80-100	40-85	15-55	<20	NP-4
	5-33	Sandy loam, fine sandy loam, loamy sand.	SM, ML, SM-SC, CL-ML	A-2-4, A-4, A-1-b	0-15	90-100	80-100	40-85	15-55	<25	NP-7
	33	Unweathered bedrock.	---	---	---	---	---	---	---	---	---
52---------- Gay Variant	0-6	Mucky sandy loam	SM, SM-SC, SP-SM	A-1-b, A-2-4, A-4	0	95-100	85-100	40-85	10-50	<20	NP-5
	6-13	Sandy loam, loamy sand.	SM, SM-SC, SP-SM	A-1-b, A-2-4, A-4	0-10	95-100	85-100	40-75	10-40	<20	NP-5
	13-24	Sandy loam-------	SM, SM-SC	A-2-4, A-4	0-10	95-100	85-100	50-70	25-40	<25	NP-7
	24-29	Channery sandy loam, channery loamy sand, very channery loamy sand.	SM, SM-SC, SP-SM	A-2-4, A-4, A-1-b	0-60	95-100	85-100	40-75	10-40	<25	NP-7
	29	Unweathered bedrock.	---	---	---	---	---	---	---	---	---
53B---------- Onota Variant	0-15	Channery sand, very channery sand.	SP, SM, SP-SM	A-1	0-20	80-100	30-55	15-40	0-15	---	NP
	15	Unweathered bedrock.	---	---	---	---	---	---	---	---	---

See footnote at end of table.

TABLE 15.--ENGINEERING INDEX PROPERTIES--Continued

Soil name and map symbol	Depth	USDA texture	Classification: Unified	Classification: AASHTO	Fragments > 3 inches	Percentage passing sieve number--: 4	10	40	200	Liquid limit	Plasticity index
	In				Pct					Pct	
54B, 54D--------- Waiska	0-3	Sand----------	SM, SP-SM	A-1, A-2, A-3	0-5	80-95	80-95	40-70	5-15	---	NP
	3-10	Gravelly loamy sand, gravelly coarse sand, gravelly sand.	SP-SM, GM, SM, SM-SC	A-1, A-3, A-2	8-15	50-80	40-65	25-55	5-25	<20	NP-6
	10-60	Very gravelly loamy coarse sand, very gravelly sand.	SP, GP, GP-GM, SP-SM	A-1, A-3, A-2	8-15	40-80	40-65	10-55	0-15	<20	NP-6
56A---------- Deerton Variant	0-31	Sand----------	SP-SM, SM	A-1-b, A-2-4, A-3	0-5	95-100	85-100	40-75	5-30	---	NP
	31	Unweathered bedrock.	---	---	---	---	---	---	---	---	---
57A*: Assinins--------	0-20	Sand----------	SM, SP-SM	A-2, A-3	0-5	95-100	95-100	50-70	5-30	---	NP
	20-29	Sandy loam, sandy clay loam.	SC, SM, SM-SC, ML	A-2, A-4	0-5	95-100	95-100	60-90	25-55	<25	NP-10
	29-60	Sandy loam-------	SM, SM-SC	A-2, A-4	0-5	95-100	95-100	60-70	30-40	<20	NP-5
Skanee----------	0-8	Loamy sand-------	SM, SM-SC, SC, CL	A-2, A-4, A-1-b	0-4	95-100	85-100	45-85	10-55	<28	NP-10
	8-18	Fine sandy loam, sandy loam.	SM, SM-SC, SC, CL	A-2, A-4, A-6	0-4	95-100	85-100	55-85	25-55	12-38	2-19
	18-30	Sandy loam, loamy sand, sandy clay loam.	SM, SC, ML, CL	A-2, A-4, A-6, A-1-b	0-4	95-100	85-100	40-90	10-55	10-40	NP-21
	30-60	Sandy loam-------	SM, SM-SC, SC	A-2, A-4	0-4	95-100	85-100	50-70	25-40	15-22	3-8
59B, 59D, 59E, 59F---------- Amasa	0-3	Cobbly silt loam	ML, CL-ML, SM, SM-SC	A-2-4, A-4	20-50	85-100	60-100	45-95	25-90	<25	NP-7
	3-27	Silt loam, cobbly fine sandy loam, very fine sandy loam.	ML, CL-ML, SM, SM-SC	A-2-4, A-4	0-45	85-100	60-100	45-95	25-90	<25	NP-7
	27-60	Stratified sand to cobbly coarse sand.	SW, SW-SM, GP, GP-GM	A-1, A-3, A-2-4	0-45	50-95	30-75	10-55	0-10	---	NP
60B---------- Fence	0-3	Silt loam--------	ML, CL-ML, CL	A-4	0	100	100	90-100	70-100	20-35	NP-10
	3-9	Very fine sandy loam, loamy very fine sand.	ML, CL, SM, SC	A-4	0	100	100	85-100	40-100	<30	NP-9
	9-58	Silt loam, very fine sandy loam, silt.	ML, CL-ML, CL	A-4, A-6	0	100	100	85-100	70-100	<30	NP-12
	58-70	Stratified silt loam to very fine sand.	ML, CL-ML	A-4	0	100	100	85-100	50-100	<25	NP-7
61B, 61D--------- Ishpeming	0-31	Loamy sand-------	SM	A-2-4	0-15	90-100	90-100	60-80	15-35	---	NP
	31-35	Unweathered bedrock.	---	---	---	---	---	---	---	---	---

See footnote at end of table.

TABLE 15.--ENGINEERING INDEX PROPERTIES--Continued

Soil name and map symbol	Depth	USDA texture	Classification: Unified	Classification: AASHTO	Frag- ments > 3 inches	Percentage passing sieve number--: 4	10	40	200	Liquid limit	Plas- ticity index
	In				Pct					Pct	
65B---------- Ocqueoc	0-22	Fine sand--------	SM, SP-SM, SC, SM-SC	A-3, A-2	0	100	100	50-80	5-35	<20	NP-10
	22-60	Stratified fine sand to silt loam.	SM, ML, CL, SC	A-6, A-4, A-2	0	100	100	65-95	20-85	10-40	NP-20
66B*:											
Champion--------	0-4	Cobbly silt loam	SM, ML	A-2-4, A-4	20-50	95-100	85-100	55-100	30-90	<20	NP-4
	4-21	Cobbly silt loam, silt loam, fine sandy loam.	SM, CL-ML, ML, SM-SC	A-2-4, A-4	0-50	95-100	85-100	55-100	30-90	<25	NP-7
	21-53	Gravelly fine sandy loam, gravelly sandy loam, gravelly loamy sand.	SM, SM-SC, SP-SM	A-2-4, A-4, A-1-b, A-3	0-20	75-100	50-80	25-70	5-45	<25	NP-6
	53-60	Gravelly fine sandy loam, gravelly sandy loam, gravelly loamy sand.	SM, SM-SC, SP-SM	A-2-4, A-1-b, A-3	0-20	80-100	50-80	25-55	5-35	<25	NP-6
Net----------	0-3	Silt loam--------	ML, SM, CL-ML, SM-SC	A-4, A-2-4	30-50	95-100	85-95	35-95	30-90	<20	NP-6
	3-23	Gravelly silt loam, fine sandy loam, very fine sandy loam.	ML, SM, CL-ML, SM-SC	A-4, A-1-b, A-2-4	5-25	75-100	55-95	40-95	20-85	<20	NP-6
	23-39	Gravelly sandy loam, gravelly loamy sand, gravelly fine sandy loam.	SM, SM-SC, SP-SM	A-2-4, A-4, A-1-b, A-3	5-25	75-100	55-80	25-70	5-45	<20	NP-4
	39-60	Gravelly sandy loam, gravelly loamy sand, gravelly fine sandy loam.	SM, SM-SC, SP-SM	A-2-4, A-4, A-1-b, A-3	5-25	75-100	55-80	25-70	5-45	<20	NP-6
67*:											
Witbeck---------	0-6	Muck----------	PT	A-8	45-70	---	---	---	---	---	---
	6-10	Silt loam, mucky silt loam.	ML, CL, CL-ML	A-4, A-6	45-70	90-100	85-100	75-100	60-90	<35	NP-15
	10-22	Fine sandy loam, very fine sandy loam, gravelly loam.	SM, ML, CL, SC	A-2-4, A-4, A-1-b	0-25	75-95	65-95	40-95	20-70	<30	NP-10
	22-60	Very fine sandy loam, gravelly fine sandy loam, gravelly loam.	SM, ML, CL, SC	A-2-4, A-4, A-1-b	0-25	75-95	65-95	40-95	20-70	<30	NP-10
Tacoosh---------	0-8	Sapric material	PT	A-8	---	---	---	---	---	---	---
	8-31	Hemic material---	PT	A-8	---	---	---	---	---	---	---
	31-60	Sandy loam, loam, clay loam.	SM, ML, CL-ML, CL	A-2, A-4, A-6	0-10	85-100	85-95	65-95	25-75	15-35	NP-20

See footnote at end of table.

TABLE 15.--ENGINEERING INDEX PROPERTIES--Continued

Soil name and map symbol	Depth	USDA texture	Classification		Frag- ments > 3 inches	Percentage passing sieve number--				Liquid limit	Plas- ticity index
			Unified	AASHTO		4	10	40	200		
	In				Pct					Pct	
68B, 68D--------- Amasa	0-3	Fine sandy loam	ML, CL-ML, SM, SM-SC	A-4	0-20	95-100	90-100	65-100	35-90	<25	NP-7
	3-27	Silt loam, loam, fine sandy loam.	ML, CL-ML, SM, SM-SC	A-4	0-8	95-100	90-100	65-100	35-90	<25	NP-7
	27-60	Stratified sand to gravelly coarse sand.	SW, SW-SM, GP, SP	A-1, A-3, A-2-4	0-8	50-95	30-75	10-55	0-10	---	NP
69E*, 69F*: Yalmer----------	0-23	Loamy sand-------	SP-SM, SM	A-1-b, A-2-4	0-2	95-100	75-100	35-75	10-35	---	NP
	23-39	Loamy sand, sandy loam, sand.	SM, SM-SC, SP-SM	A-1-b, A-2-4, A-4	0-4	95-100	80-100	40-75	10-40	<25	NP-6
	39-70	Sandy loam-------	SM, SM-SC, SC	A-1-b, A-2-4, A-4	0-4	95-100	75-100	45-70	20-40	<27	NP-8
Munising--------	0-9	Loamy sand-------	SM, SP-SM	A-2-4, A-1-b	0-5	95-100	85-100	40-75	10-30	<20	NP-4
	9-21	Sandy loam, fine sandy loam.	SM, SM-SC, ML, CL-ML	A-4, A-2-4	0-5	95-100	85-100	50-85	25-55	<25	NP-6
	21-48	Sandy loam, loamy sand.	SM, SC, SP-SM, SM-SC	A-2, A-1-b, A-6, A-4	0-5	95-100	85-100	40-75	10-40	15-35	NP-15
	48-80	Sandy loam, fine sandy loam, sandy clay loam.	SM, SC, CL, ML	A-2-4, A-2-6, A-6, A-4	0-5	95-100	85-100	50-90	25-55	15-35	NP-15
70---------- Winterfield	0-9	Fine sandy loam	SM, SM-SC	A-2-4, A-4	0	100	95-100	70-90	30-40	<20	NP-5
	9-33	Sand, loamy sand, loamy fine sand.	SM, SP-SM	A-2-4, A-3, A-4	0	100	95-100	50-90	5-45	---	NP
	33-60	Fine sand, loamy sand.	SM, SP-SM, SP	A-3, A-1-b, A-2-4	0	90-100	80-100	45-80	0-35	---	NP
71A---------- Pelkie	0-8	Loamy very fine sand.	ML, SM	A-2, A-4	0	100	100	50-95	20-60	---	NP
	8-60	Sand, fine sand	SM, SP-SM	A-2, A-3	0	100	100	50-80	5-35	---	NP
72---------- Sturgeon	0-8	Silt loam--------	ML, CL-ML	A-4	0	100	95-100	85-100	60-90	<25	2-7
	8-30	Silt loam, very fine sandy loam, loamy very fine sand.	ML, SM, SC, CL	A-4	0	100	99-100	85-100	35-95	<30	NP-10
	30-60	Sand, fine sand	SM, SP-SM	A-2, A-3, A-1	0	95-100	75-100	35-80	5-35	---	NP
73---------- Arnheim	0-5	Mucky silt loam	ML, CL-ML, SM, SM-SC	A-4	0	100	100	90-100	40-90	<25	NP-6
	5-60	Stratified silt loam to sand.	ML, SM, CL, SC	A-2-4, A-4, A-3	0	100	100	50-100	5-90	<30	NP-10
74B---------- Waiska Variant	0-60	Very channery sand, extremely channery sand.	GP, GW	A-1	0-20	20-50	10-40	5-30	0-5	---	NP

See footnote at end of table.

TABLE 15.--ENGINEERING INDEX PROPERTIES--Continued

Soil name and map symbol	Depth	USDA texture	Classification: Unified	Classification: AASHTO	Fragments > 3 inches	Percentage passing sieve number--: 4	10	40	200	Liquid limit	Plasticity index
	In				Pct					Pct	
75D---------- Fence	0-3	Silt loam--------	ML, CL-ML, CL	A-4	0	100	100	90-100	70-100	20-35	NP-10
	3-9	Very fine sandy loam, loamy very fine sand.	ML, CL, SM, SC	A-4	0	100	100	85-100	40-100	<30	NP-9
	9-58	Silt loam, very fine sandy loam, silt.	ML, CL-ML, CL	A-4, A-6	0	100	100	85-100	70-100	<30	NP-12
	58-70	Stratified silt loam to very fine sand.	ML, CL-ML	A-4	0	100	100	85-100	50-100	<25	NP-7
76A---------- Allendale	0-9	Loamy sand-------	SM	A-2-4	0	100	95-100	50-75	15-25	---	NP
	9-27	Sand, loamy sand	SP, SM, SP-SM	A-2-4, A-3	0	100	95-100	50-70	0-20	---	NP
	27-60	Silty clay, clay	CH, MH	A-7	0	100	90-100	90-100	75-95	50-70	20-40
78B*, 78D*, 78E*: Champion--------	0-4	Cobbly silt loam	SM, ML	A-2-4, A-4	20-50	95-100	85-100	55-100	30-90	<20	NP-4
	4-21	Cobbly silt loam, silt loam, fine sandy loam.	SM, CL-ML, ML, SM-SC	A-2-4, A-4	0-50	95-100	85-100	55-100	30-90	<25	NP-7
	21-53	Gravelly fine sandy loam, gravelly sandy loam, gravelly loamy sand.	SM, SM-SC, SP-SM	A-2-4, A-4, A-1-b, A-3	0-20	75-100	50-80	25-70	5-45	<25	NP-6
	53-60	Gravelly fine sandy loam, gravelly sandy loam, gravelly loamy sand.	SM, SM-SC, SP-SM	A-2-4, A-1-b, A-3	0-20	80-100	50-80	25-55	5-35	<25	NP-6
Michigamme------	0-4	Cobbly silt loam	SM, ML	A-2-4, A-4, A-1-b	20-50	95-100	75-100	45-95	20-90	<20	NP-4
	4-24	Cobbly silt loam, silt loam, sandy loam.	SM, ML, SM-SC, CL-ML	A-2-4, A-4, A-1-b	0-50	95-100	75-100	45-95	20-90	<25	NP-7
	24-31	Cobbly fine sandy loam, gravelly fine sandy loam, loamy sand.	SM, SP-SM	A-2-4, A-4, A-1-b, A-3	0-30	75-100	50-95	25-80	5-50	<20	NP-4
	31	Unweathered bedrock.	---	---	---	---	---	---	---	---	---
79B, 79D--------- Nunica	0-6	Silt loam--------	CL-ML, ML, CL	A-4, A-6	0	100	100	85-100	50-90	<28	3-11
	6-25	Silty clay loam, silt loam.	CL	A-6, A-7	0	100	100	95-100	85-95	28-45	10-20
	25-60	Stratified silty clay loam to fine sandy loam.	CL-ML, CL, ML, SM	A-4, A-6, A-7	0	100	100	70-100	40-95	15-45	NP-20
80A---------- Bowers	0-11	Silt loam--------	CL	A-4, A-6	0	100	100	85-100	60-95	30-40	9-18
	11-22	Silty clay loam	CL	A-6, A-7	0	100	100	90-100	70-80	35-50	18-30
	22-25	Silty clay loam, silty clay.	CL, CH	A-7	0	100	100	95-100	85-95	40-55	18-30
	25-60	Silt loam, silty clay loam.	CL	A-6, A-7	0	100	100	90-100	70-95	35-50	18-30

See footnote at end of table.

TABLE 15.--ENGINEERING INDEX PROPERTIES--Continued

Soil name and map symbol	Depth	USDA texture	Classification: Unified	Classification: AASHTO	Frag- ments > 3 inches	Percentage passing sieve number--: 4	10	40	200	Liquid limit	Plas- ticity index
	In				Pct					Pct	
81A---------- Burt Variant	0-13	Very gravelly loamy sand, very gravelly sand.	SP, SP-SM, SM	A-1	0-20	80-100	30-55	15-40	0-15	---	NP
	13	Unweathered bedrock.	---	---	---	---	---	---	---	---	---
82---------- Roscommon Variant	0-5	Mucky sand--------	SP-SM, SM	A-1, A-2, A-3	0	100	90-100	40-65	5-30	---	NP
	5-31	Sand, loamy sand	SP-SM, SM	A-1, A-2, A-3	0-10	100	90-100	45-75	5-30	---	NP
	31	Unweathered bedrock.	---	---	---	---	---	---	---	---	---
83E*:											
Nunica----------	0-6	Silt loam---------	CL-ML, ML, CL	A-4, A-6	0	100	100	85-100	50-90	<28	3-11
	6-25	Silty clay loam, silt loam.	CL	A-6, A-7	0	100	100	95-100	85-95	28-45	10-20
	25-60	Stratified silty clay loam to fine sandy loam.	CL-ML, CL, ML, SM	A-4, A-6, A-7	0	100	100	70-100	40-95	15-45	NP-20
Ontonagon--------	0-7	Silt loam---------	CL-ML, CL	A-4, A-6	0	100	100	95-100	85-95	25-35	5-15
	7-34	Clay----------	CH	A-7	0	100	100	90-100	75-95	65-90	40-55
	34-60	Silty clay--------	CH	A-7	0	100	100	90-100	75-95	65-90	40-55
84A---------- Channing	0-5	Fine sandy loam	SM, ML, CL-ML, SM-SC	A-2-4, A-4	0-20	95-100	95-100	55-95	25-65	<25	NP-6
	5-22	Very fine sandy loam, fine sandy loam.	SM, ML, CL-ML, SM-SC	A-2-4, A-4	0-5	95-100	95-100	55-95	25-75	<25	NP-7
	22-60	Stratified sand to very gravelly sand.	SP, SP-SM	A-1	0-10	65-95	40-80	20-30	0-10	---	NP
86A*:											
Net----------	0-3	Silt loam---------	ML, SM, CL-ML, SM-SC	A-4, A-2-4	30-50	95-100	85-95	35-95	30-90	<20	NP-6
	3-23	Gravelly silt loam, fine sandy loam, very fine sandy loam.	ML, SM, CL-ML, SM-SC	A-4, A-1-b, A-2-4	5-25	75-100	55-95	40-95	20-85	<20	NP-6
	23-39	Gravelly sandy loam, gravelly loamy sand, gravelly fine sandy loam.	SM, SM-SC, SP-SM	A-2-4, A-4, A-1-b, A-3	5-25	75-100	55-80	25-70	5-45	<20	NP-4
	39-60	Gravelly sandy loam, gravelly loamy sand, gravelly fine sandy loam.	SM, SM-SC, SP-SM	A-2-4, A-4, A-1-b, A-3	5-25	75-100	55-80	25-70	5-45	<20	NP-6

See footnote at end of table.

TABLE 15.--ENGINEERING INDEX PROPERTIES--Continued

Soil name and map symbol	Depth	USDA texture	Classification: Unified	Classification: AASHTO	Fragments > 3 inches	Percentage passing sieve number--: 4	10	40	200	Liquid limit	Plasticity index
	In				Pct					Pct	
86A*:											
Witbeck---------	0-6	Muck----------	PT	A-8	45-70	---	---	---	---	---	---
	6-10	Silt loam, mucky silt loam.	ML, CL, CL-ML	A-4, A-6	45-70	90-100	85-100	75-100	60-90	<35	NP-15
	10-22	Fine sandy loam, very fine sandy loam, gravelly loam.	SM, ML, CL, SC	A-2-4, A-4, A-1-b	0-25	75-95	65-95	40-95	20-70	<30	NP-10
	22-60	Very fine sandy loam, gravelly fine sandy loam, gravelly loam.	SM, ML, CL, SC	A-2-4, A-4, A-1-b	0-25	75-95	65-95	40-95	20-70	<30	NP-10
87A*:											
Skanee----------	0-8	Loamy sand-------	SM, SM-SC, SC, CL	A-2, A-4, A-1-b	0-4	95-100	85-100	45-85	10-55	<28	NP-10
	8-18	Fine sandy loam, sandy loam.	SM, SM-SC, SC, CL	A-2, A-4, A-6	0-4	95-100	85-100	55-85	25-55	12-38	2-19
	18-30	Sandy loam, loamy sand, sandy clay loam.	SM, SC, ML, CL	A-2, A-4, A-6, A-1-b	0-4	95-100	85-100	40-90	10-55	10-40	NP-21
	30-60	Sandy loam-------	SM, SM-SC, SC	A-2, A-4	0-4	95-100	85-100	50-70	25-40	15-22	3-8
Gay----------	0-7	Mucky fine sandy loam.	SM, SM-SC, SW-SM, SP-SM	A-2-4, A-4, A-1-b	0-2	95-100	85-100	40-80	10-50	<25	NP-7
	7-11	Loamy sand, sandy loam.	SM, SM-SC, SW-SM, SP-SM	A-2-4, A-4, A-1-b	0-2	95-100	85-100	40-75	10-40	<25	NP-7
	11-30	Sandy loam, sandy clay loam.	SM, SM-SC, SC	A-2-4, A-4	0-2	95-100	85-100	50-85	25-50	<30	2-10
	30-60	Sandy loam, sandy clay loam.	SM-SC, SC	A-2-4, A-4, A-2-6, A-6	0-2	95-100	85-100	50-85	25-50	20-35	4-15
88B*, 88D*, 88E*:											
Munising--------	0-9	Loamy sand-------	SM, SP-SM	A-2-4, A-1-b	0-5	95-100	85-100	40-75	10-30	<20	NP-4
	9-21	Sandy loam, fine sandy loam.	SM, ML, SM-SC, CL-ML	A-4, A-2-4	0-5	95-100	85-100	50-85	25-55	<25	NP-6
	21-48	Sandy loam, loamy sand.	SM, SC, SP-SM, SM-SC	A-2, A-6, A-4, A-1-b	0-5	95-100	85-100	40-75	10-40	15-35	NP-15
	48-80	Sandy loam, sandy clay loam, fine sandy loam.	SM, SC, CL, ML	A-2, A-6, A-4	0-5	95-100	85-100	50-90	25-55	15-35	NP-15
Yalmer----------	0-23	Loamy sand, sand, fine sand.	SP-SM, SM	A-2, A-1-b	0-2	95-100	75-100	35-75	10-30	---	NP
	23-39	Loamy fine sand, fine sandy loam.	SM, SM-SC, SP-SM	A-2, A-1-b, A-4	0-4	95-100	80-100	40-75	10-40	<25	NP-7
	39-70	Fine sandy loam, loamy fine sand.	SM, SC, SM-SC	A-2, A-4, A-1-b	0-4	95-100	75-100	45-70	20-40	<27	NP-8

See footnote at end of table.

TABLE 15.--ENGINEERING INDEX PROPERTIES--Continued

Soil name and map symbol	Depth	USDA texture	Classification: Unified	Classification: AASHTO	Frag- ments > 3 inches	Percentage passing sieve number--: 4	10	40	200	Liquid limit	Plas- ticity index
	In				Pct					Pct	
91B*, 91D*, 91E*, 92B*, 92D*, 92E*:											
Keweenaw-------	0-4	Loamy sand-------	SM, SC, SM-SC, SP-SM	A-2, A-1-b	0-10	80-100	80-100	45-85	10-30	<20	NP-10
	4-18	Loamy sand, loamy fine sand.	SM, SC, SM-SC, SP-SM	A-2, A-1-b	0-25	75-100	70-100	45-90	10-30	<20	NP-10
	18-35	Sand, loamy fine sand.	SM, SC, SP, SP-SM	A-2, A-3, A-1-b	0-25	75-100	70-100	45-85	0-30	<20	NP-10
	35-60	Loamy sand, fine sandy loam, sand.	SM, SC, SP, SM-SC	A-2, A-3, A-1-b	0-25	60-100	55-100	35-85	0-35	<30	NP-10
Kalkaska-------	0-9	Sand----------	SM, SP-SM	A-1, A-2, A-3	0	100	95-100	40-70	5-15	---	NP
	9-19	Sand----------	SM, SP-SM	A-1, A-2, A-3	0	95-100	90-100	40-75	5-15	---	NP
	19-60	Sand----------	SP, SP-SM	A-1, A-2, A-3	0	100	95-100	40-80	0-10	---	NP
93B*, 93D*:											
Deerton---------	0-13	Sand----------	SM, SP-SM	A-1-b, A-2-4, A-3	0-5	95-100	90-100	45-70	5-15	---	NP
	13-36	Sand, loamy sand	SM, SP, SP-SM	A-1-b, A-2-4, A-3	0-10	85-100	80-95	40-75	4-30	---	NP
	36-40	Unweathered bedrock.	---	---	---	---	---	---	---	---	---
Abbaye----------	0-11	Loamy sand-------	SM, SM-SC, SP-SM	A-1-b, A-2-4	0-7	95-100	90-100	45-75	10-30	<25	2-7
	11-23	Sandy loam, fine sandy loam.	CL, CL-ML, SM-SC, SC	A-2-4, A-4	0-7	95-100	90-100	55-85	25-55	<25	4-10
	23-30	Sandy loam, loamy sand.	SM-SC, SC, SP-SC	A-2-4, A-4, A-1-b	0-7	95-100	90-100	45-75	10-40	<25	4-10
	30	Unweathered bedrock.	---	---	---	---	---	---	---	---	---
94B---------- Deerton	0-13	Sand----------	SM, SP-SM	A-1-b, A-2-4, A-3	0-5	95-100	90-100	45-70	5-15	---	NP
	13-36	Sand, loamy sand	SM, SP, SP-SM	A-1-b, A-2-4, A-3	0-10	85-100	80-95	40-75	4-30	---	NP
	36-40	Unweathered bedrock.	---	---	---	---	---	---	---	---	---
95B, 95D--------- Amasa	0-3	Fine sandy loam	ML, CL-ML, SM, SM-SC	A-4	0	95-100	90-100	65-100	35-90	<25	NP-7
	3-27	Silt loam, loam, fine sandy loam.	ML, CL-ML, SM, SM-SC	A-4	0	95-100	90-100	65-100	35-90	<25	NP-7
	27-60	Sand----------	SP-SM, SM	A-1, A-3, A-2-4	0	95-100	90-100	45-70	5-15	---	NP

See footnote at end of table.

TABLE 15.--ENGINEERING INDEX PROPERTIES--Continued

Soil name and map symbol	Depth	USDA texture	Classification: Unified	Classification: AASHTO	Frag- ments > 3 inches	Percentage passing sieve number--: 4	10	40	200	Liquid limit	Plas- ticity index
	In				Pct					Pct	
96A---------- Richter Variant	0-10	Very fine sandy loam, loamy very fine sand.	SM, SM-SC, CL-ML, ML	A-4	0	100	100	70-95	40-65	<25	NP-7
	10-36	Loamy very fine sand, fine sandy loam, very fine sandy loam.	SM, SM-SC, CL-ML, ML	A-4	0	100	100	70-95	40-65	<25	NP-7
	36-60	Stratified fine sand to silt loam.	SM, SM-SC, CL-ML, ML	A-2-4, A-4	0	100	100	65-100	20-90	<25	NP-7
98A*:											
Burt Variant----	0-13	Very gravelly loamy sand, loamy sand, very gravelly sand.	SP, SP-SM, SM	A-1	0-20	80-100	30-55	15-40	0-15	---	NP
	13	Unweathered bedrock.	---	---	---	---	---	---	---	---	---
Burt----------	0-5	Mucky sand-------	SP-SM, SM	A-2-4, A-3	0-5	95-100	85-100	50-80	5-35	---	NP
	5-19	Sand, loamy sand, fine sand.	SP-SM, SM	A-3, A-2, A-1-b	0-10	95-100	85-100	40-75	5-30	---	NP
	19	Unweathered bedrock.	---	---	---	---	---	---	---	---	---
99B*, 99D*:											
Rubicon---------	0-7	Sand----------	SM, SP-SM, SP	A-2, A-3	0	95-100	90-100	50-90	0-25	---	NP
	7-13	Sand----------	SM, SP-SM, SP	A-2, A-3	0	95-100	90-100	50-90	0-25	---	NP
	13-60	Sand, coarse sand	SP, SP-SM, SM	A-1, A-2, A-3	0	95-100	90-100	40-90	0-25	---	NP
Rousseau--------	0-4	Fine sand--------	SP-SM, SM	A-2-4, A-3	0	100	100	90-100	5-35	---	NP
	4-25	Fine sand--------	SP-SM, SM	A-3, A-2-4	0	100	100	90-100	5-25	---	NP
	25-60	Fine sand--------	SP, SP-SM	A-3	0	100	100	85-100	0-10	---	NP
Ocqueoc---------	0-22	Fine sand--------	SM, SP-SM, SC, SM-SC	A-3, A-2	0	100	100	50-80	5-35	<20	NP-10
	22-60	Stratified fine sand to silt loam.	SM, ML, CL, SC	A-6, A-4, A-2	0	100	100	65-95	20-85	10-40	NP-20
100B, 100D, 100E- Amasa	0-3	Cobbly silt loam	ML, CL-ML, SM, SM-SC	A-2-4, A-4	20-50	85-100	60-100	45-95	25-90	<25	NP-7
	3-27	Silt loam, cobbly fine sandy loam, very fine sandy loam.	ML, CL-ML, SM, SM-SC	A-2-4, A-4	0-45	85-100	60-100	45-95	25-90	<25	NP-7
	27-60	Stratified sand to cobbly coarse sand.	SW, SW-SM, GP, GP-GM	A-1, A-3, A-2-4	0-45	50-95	30-75	10-55	0-10	---	NP
101E*, 101F*:											
Peshekee--------	0-5	Cobbly silt loam	SM, ML, CL-ML, SM-SC	A-2-4, A-4, A-1-b	20-50	95-100	75-100	45-95	20-85	<20	NP-5
	5-18	Cobbly silt loam, silt loam, cobbly fine sandy loam.	SM, ML, CL-ML, SM-SC	A-2-4, A-4, A-1-b	0-50	95-100	75-100	45-95	20-85	<25	NP-7
	18	Unweathered bedrock.	---	---	---	---	---	---	---	---	---

See footnote at end of table.

TABLE 15.--ENGINEERING INDEX PROPERTIES--Continued

Soil name and map symbol	Depth	USDA texture	Classification: Unified	Classification: AASHTO	Fragments > 3 inches	Percentage passing sieve number--: 4	10	40	200	Liquid limit	Plasticity index
	In				Pct					Pct	
101E*, 101F*: Rock outcrop.											
102A---------- Channing	0-5	Fine sandy loam	SM, ML, SM-SC, CL-ML	A-2-4, A-4	20-45	95-100	85-100	50-85	25-65	<25	NP-6
	5-22	Very fine sandy loam, fine sandy loam.	SM, ML, SM-SC, CL-ML	A-2-4, A-4	0-45	95-100	85-100	50-85	25-75	<25	NP-7
	22-60	Stratified sand to very gravelly sand.	SP, SP-SM	A-1	0-15	65-95	40-80	20-30	0-10	---	NP
106B---------- Yalmer	0-23	Loamy sand--------	SP-SM, SM	A-2, A-1-b	0-2	95-100	75-100	35-75	10-30	---	NP
	23-39	Loamy sand, fine sand.	SM, SM-SC, SP-SM	A-2, A-1-b, A-4	0-4	95-100	80-100	40-75	10-40	<25	NP-7
	39-70	Fine sandy loam, loamy fine sand.	SM, SC, SM-SC	A-2, A-4, A-1-b	0-4	95-100	75-100	45-70	20-40	<27	NP-8
107F*: Rousseau--------	0-4	Fine sand---------	SP-SM, SM	A-2-4, A-3	0	100	100	90-100	5-35	---	NP
	4-25	Fine sand---------	SP-SM, SM	A-3, A-2-4	0	100	100	90-100	5-25	---	NP
	25-60	Fine sand---------	SP, SP-SM	A-3	0	100	100	85-100	0-10	---	NP
Ocqueoc---------	0-22	Fine sand---------	SM, SP-SM, SC, SM-SC	A-3, A-2	0	100	100	50-80	5-35	<20	NP-10
	22-60	Stratified fine sand to silt loam.	SM, ML, CL, SC	A-6, A-4, A-2	0	100	100	65-95	20-85	10-40	NP-20
108B*: Champion--------	0-4	Cobbly silt loam	SM, ML	A-2-4, A-4	20-50	95-100	85-100	55-100	30-90	<20	NP-4
	4-21	Cobbly silt loam, silt loam, fine sandy loam.	SM, CL-ML, ML, SM-SC	A-2-4, A-4	0-50	95-100	85-100	55-100	30-90	<25	NP-7
	21-53	Gravelly fine sandy loam, gravelly sandy loam, gravelly loamy sand.	SM, SM-SC, SP-SM	A-2-4, A-4, A-1-b, A-3	0-20	75-100	50-80	25-70	5-45	<25	NP-6
	53-60	Gravelly fine sandy loam, gravelly sandy loam, gravelly loamy sand.	SM, SM-SC, SP-SM	A-2-4, A-1-b, A-3	0-20	80-100	50-80	25-55	5-35	<25	NP-6

See footnote at end of table.

TABLE 15.--ENGINEERING INDEX PROPERTIES--Continued

Soil name and map symbol	Depth	USDA texture	Classification: Unified	Classification: AASHTO	Frag- ments > 3 inches	Percentage passing sieve number--: 4	10	40	200	Liquid limit	Plas- ticity index
	In				Pct					Pct	
108B*:											
Net----------	0-3	Silt loam--------	ML, SM, CL-ML, SM-SC	A-4, A-2-4	30-50	95-100	85-95	35-95	30-90	<20	NP-6
	3-23	Gravelly silt loam, fine sandy loam, very fine sandy loam.	ML, SM, CL-ML, SM-SC	A-4, A-1-b, A-2-4	5-25	75-100	55-95	40-95	20-85	<20	NP-6
	23-39	Gravelly sandy loam, gravelly loamy sand, gravelly fine sandy loam.	SM, SM-SC, SP-SM	A-2-4, A-4, A-1-b, A-3	5-25	75-100	55-80	25-70	5-45	<20	NP-4
	39-60	Gravelly sandy loam, gravelly loamy sand, gravelly fine sandy loam.	SM, SM-SC, SP-SM	A-2-4, A-4, A-1-b, A-3	5-25	75-100	55-80	25-70	5-45	<20	NP-6
Michigamme------	0-4	Cobbly silt loam	SM, ML	A-2-4, A-4, A-1-b	20-50	95-100	75-100	45-95	20-90	<20	NP-4
	4-24	Cobbly silt loam, silt loam, sandy loam.	SM, ML, SM-SC, CL-ML	A-2-4, A-4, A-1-b	0-50	95-100	75-100	45-95	20-90	<25	NP-7
	24-31	Cobbly fine sandy loam, gravelly fine sandy loam, loamy sand.	SM, SP-SM	A-2-4, A-4, A-1-b, A-3	0-30	75-100	50-95	25-80	5-50	<20	NP-4
	31	Unweathered bedrock.	---	---	---	---	---	---	---	---	---
109F*:											
Rousseau--------	0-4	Fine sand--------	SP-SM, SM	A-2-4, A-3	0	100	100	90-100	5-35	---	NP
	4-25	Fine sand--------	SP-SM, SM	A-3, A-2-4	0	100	100	90-100	5-25	---	NP
	25-60	Fine sand--------	SP, SP-SM	A-3	0	100	100	85-100	0-10	---	NP
Fence----------	0-3	Silt loam--------	ML, CL-ML, CL	A-4	0	100	100	90-100	70-100	20-35	NP-10
	3-9	Very fine sandy loam, loamy very fine sand.	ML, CL, SM, SC	A-4	0	100	100	85-100	40-100	<30	NP-9
	9-58	Silt loam, very fine sandy loam, silt.	ML, CL-ML, CL	A-4, A-6	0	100	100	85-100	70-100	<30	NP-12
	58-70	Stratified silt loam to very fine sand.	ML, CL-ML	A-4	0	100	100	85-100	50-100	<25	NP-7
Ocqueoc---------	0-22	Fine sand--------	SM, SP-SM, SC, SM-SC	A-3, A-2	0	100	100	50-80	5-35	<20	NP-10
	22-60	Stratified fine sand to silt loam.	SM, ML, CL, SC	A-6, A-4, A-2	0	100	100	65-95	20-85	10-40	NP-20
110E*:											
Ishpeming-------	0-31	Loamy sand-------	SM	A-2-4	0-15	90-100	90-100	60-80	15-35	---	NP
	31-35	Unweathered bedrock.	---	---	---	---	---	---	---	---	---
Rock outcrop.											

See footnote at end of table.

TABLE 15.--ENGINEERING INDEX PROPERTIES--Continued

Soil name and map symbol	Depth	USDA texture	Classification: Unified	Classification: AASHTO	Frag- ments > 3 inches	Percentage passing sieve number--: 4	10	40	200	Liquid limit	Plas- ticity index
	In				Pct					Pct	
111B*:											
Yalmer----------	0-23	Loamy sand-------	SP-SM, SM	A-2, A-1-b	0-2	95-100	75-100	35-75	10-30	---	NP
	23-39	Loamy sand, fine sand.	SM, SM-SC, SP-SM	A-2, A-1-b, A-4	0-4	95-100	80-100	40-75	10-40	<25	NP-7
	39-70	Fine sandy loam, loamy fine sand.	SM, SC, SM-SC	A-2, A-4, A-1-b	0-4	95-100	75-100	45-70	20-40	<27	NP-8
Assinins--------	0-20	Sand----------	SM, SP-SM	A-2, A-3	0-5	95-100	95-100	50-70	5-30	---	NP
	20-29	Sandy loam, sandy clay loam.	SC, SM, SM-SC, ML	A-2, A-4	0-5	95-100	95-100	60-90	25-55	<25	NP-10
	29-60	Sandy loam-------	SM, SM-SC	A-2, A-4	0-5	95-100	95-100	60-70	30-40	<20	NP-5
112A---------- Assinins	0-20	Sand----------	SM, SP-SM	A-2, A-3	0-5	95-100	95-100	50-70	5-30	---	NP
	20-29	Sandy loam, sandy clay loam.	SC, SM, SM-SC, ML	A-2, A-4	0-5	95-100	95-100	60-90	25-55	<25	NP-10
	29-60	Sandy loam-------	SM, SM-SC	A-2, A-4	0-5	95-100	95-100	60-70	30-40	<20	NP-5
113B, 113D------- Petticoat	0-10	Cobbly silt loam	ML, CL-ML	A-4	20-40	95-100	85-100	75-95	55-75	<25	NP-7
	10-38	Cobbly silt loam, silt loam, loam.	ML, CL-ML, SM, SM-SC	A-4	5-35	95-100	85-100	65-95	35-75	<30	NP-7
	38-60	Gravelly loamy sand, gravelly loamy fine sand, very gravelly loamy sand.	SM, SP-SM, GM, GP-GM	A-2-4, A-4, A-1, A-3	5-35	60-90	45-80	25-80	5-50	<20	NP-4
114B, 114E------- Peshekee Variant	0-3	Very flaggy very fine sandy loam.	SM, SM-SC, ML, CL-ML	A-2-4, A-4	50-65	75-80	65-80	45-80	25-70	<25	NP-6
	3-12	Very flaggy very fine sandy loam, very flaggy very fine sandy loam.	SM, SM-SC, ML, CL-ML	A-2-4, A-4	50-65	75-80	65-80	45-80	25-70	<25	NP-6
	12	Unweathered bedrock.	---	---	---	---	---	---	---	---	---
115D*, 115E*:											
Munising--------	0-9	Fine sandy loam	SM, SM-SC	A-4, A-2	0-5	95-100	85-100	50-85	25-45	<25	NP-6
	9-21	Sandy loam, fine sandy loam.	SM, ML, SM-SC, CL-ML	A-4, A-2-4	0-5	95-100	85-100	50-85	25-55	<25	NP-6
	21-48	Sandy loam, loamy sand.	SM, SC, SP-SM, SM-SC	A-2, A-6, A-4, A-1-b	0-5	95-100	85-100	40-75	10-40	15-35	NP-15
	48-80	Sandy loam, sandy clay loam, fine sandy loam.	SM, SC, CL, ML	A-2, A-6, A-4	0-5	95-100	85-100	50-90	25-55	15-35	NP-15
Michigamme------	0-4	Cobbly silt loam	SM, ML	A-2-4, A-4, A-1-b	20-50	95-100	75-100	45-95	20-90	<20	NP-4
	4-24	Cobbly silt loam, silt loam, sandy loam.	SM, ML, SM-SC, CL-ML	A-2-4, A-4, A-1-b	0-50	95-100	75-100	45-95	20-90	<25	NP-7
	24-31	Cobbly fine sandy loam, gravelly fine sandy loam, loamy sand.	SM, SP-SM	A-2-4, A-4, A-1-b, A-3	0-30	75-100	50-95	25-80	5-50	<20	NP-4
	31	Unweathered bedrock.	---	---	---	---	---	---	---	---	---

* See description of the map unit for composition and behavior characteristics of the map unit.

TABLE 16.--PHYSICAL AND CHEMICAL PROPERTIES OF THE SOILS

(The symbol < means less than; > means more than. Entries under "Erosion factors--T" apply to the entire profile. Entries under "Wind erodibility group" and "Organic matter" apply only to the surface layer. Absence of an entry indicates that data were not available or were not estimated)

Soil name and map symbol	Depth	Clay	Moist bulk density	Permeability	Available water capacity	Soil reaction	Shrink-swell potential	Erosion factors K	Erosion factors T	Wind erodibility group	Organic matter
	In	Pct	g/cc	In/hr	In/in	pH					Pct
10B, 10D--------- Watton	0-16	15-25	1.50-1.70	0.6-2.0	0.19-0.24	3.6-7.3	Low----------	0.37	5	5	1-2
	16-43	24-35	1.55-1.80	0.2-0.6	0.14-0.20	4.5-7.8	Moderate-----	0.37			
	43-60	24-35	1.65-1.90	0.2-0.6	0.13-0.18	6.6-8.4	Moderate-----	0.37			
11A---------- Alstad	0-7	7-18	1.35-1.60	0.6-2.0	0.20-0.24	5.1-7.3	Low----------	0.37	5	5	2-4
	7-10	6-16	1.55-1.65	0.6-2.0	0.13-0.22	5.1-7.3	Low----------	0.32			
	10-18	18-35	1.55-1.65	0.6-2.0	0.14-0.22	5.1-7.3	Low----------	0.32			
	18-40	18-35	1.55-1.70	0.6-2.0	0.13-0.19	5.6-7.8	Low----------	0.32			
	40-60	8-28	1.60-1.80	0.2-0.6	0.09-0.19	6.1-8.4	Low----------	0.32			
12---------- Alstad Variant	0-6	0-12	0.90-1.55	0.6-2.0	0.18-0.25	6.1-7.3	Low----------	0.20	5	8	2-5
	6-60	20-30	1.40-1.80	0.2-0.6	0.12-0.20	6.1-7.8	Moderate-----	0.32			
13B, 13D--------- Grayling	0-25	0-10	1.30-1.65	6.0-20	0.05-0.09	3.6-5.5	Low----------	0.15	5	1	---
	25-60	0-10	1.45-1.65	6.0-20	0.04-0.06	4.5-6.5	Low----------	0.15			
14B, 14D, 14E, 14F---------- Rubicon	0-7	0-5	1.35-1.45	6.0-20	0.05-0.09	4.5-6.0	Low----------	0.15	5	1	.5-1
	7-13	0-10	1.30-1.60	6.0-20	0.04-0.08	4.5-6.0	Low----------	0.15			
	13-60	0-5	1.40-1.55	6.0-20	0.04-0.06	5.6-6.5	Low----------	0.15			
15B, 15D--------- Champion	0-4	2-10	1.10-1.65	0.6-2.0	0.09-0.20	3.6-6.0	Low----------	0.28	4	8	1-3
	4-21	2-15	1.25-1.65	0.6-2.0	0.12-0.20	3.6-6.0	Low----------	0.28			
	21-53	2-12	1.75-2.05	0.06-0.2	0.01-0.04	3.6-6.0	Low----------	0.20			
	53-60	1-12	1.30-1.65	0.6-6.0	0.01-0.04	3.6-6.0	Low----------	0.20			
15E---------- Champion	0-4	2-10	1.10-1.65	0.6-2.0	0.09-0.22	3.6-6.0	Low----------	0.28	4	8	1-3
	4-21	2-15	1.25-1.65	0.6-2.0	0.12-0.20	3.6-6.0	Low----------	0.28			
	21-53	2-12	1.75-2.05	0.06-0.2	0.01-0.04	3.6-6.0	Low----------	0.20			
	53-60	1-12	1.30-1.65	0.6-6.0	0.01-0.04	3.6-6.0	Low----------	0.20			
16A---------- Croswell	0-6	0-10	1.25-1.55	6.0-20	0.07-0.09	3.6-7.3	Low----------	0.15	5	1	.5-2
	6-17	0-10	1.25-1.60	6.0-20	0.06-0.08	3.6-7.3	Low----------	0.15			
	17-60	0-10	1.25-1.60	6.0-20	0.05-0.07	5.1-7.3	Low----------	0.15			
17A---------- Au Gres	0-8	0-8	0.65-1.55	6.0-20	0.07-0.10	3.6-6.0	Low----------	0.15	5	1	.5-8
	8-19	1-10	1.20-1.55	6.0-20	0.06-0.09	4.5-6.0	Low----------	0.15			
	19-60	0-8	1.20-1.65	6.0-20	0.05-0.07	5.1-7.3	Low----------	0.15			
18---------- Kinross	0-12	0-10	1.00-1.20	6.0-20	0.04-0.06	3.6-6.0	Low----------	0.15	5	1	4-15
	12-60	0-10	1.50-1.70	6.0-20	0.04-0.06	3.6-6.5	Low----------	0.15			
19*:											
Dawson----------	0-4	---	0.30-0.40	>6.0	0.55-0.65	3.6-4.4	----------	----	2	7	65-85
	4-44	---	0.19-0.29	0.2-6.0	0.35-0.45	3.6-4.4	----------	----			
	44-60	0-10	1.56-1.74	6.0-20	0.03-0.10	4.5-5.5	Low----------	----			
Greenwood--------	0-10	---	0.30-0.40	>6.0	0.55-0.65	3.6-4.4	----------	----	2	5	55-75
	10-60	---	0.10-0.25	0.6-6.0	0.45-0.55	3.6-4.4	----------	----			
20*:											
Carbondale-------	0-30	---	0.15-0.40	0.2-6.0	0.35-0.45	5.6-7.8	----------	----	2	2	40-65
	30-60	---	0.10-0.20	0.6-6.0	0.45-0.55	5.6-7.8	----------	----			
Tacoosh----------	0-8	---	0.10-0.20	0.2-6.0	0.35-0.45	5.1-7.3	----------	----	2	2	>75
	8-31	---	0.10-0.20	0.6-6.0	0.45-0.55	5.1-7.3	----------	----			
	31-60	5-35	1.40-2.00	0.2-2.0	0.12-0.20	5.1-7.8	Low----------	----			

See footnote at end of table.

TABLE 16.--PHYSICAL AND CHEMICAL PROPERTIES OF THE SOILS--Continued

Soil name and map symbol	Depth	Clay	Moist bulk density	Permeability	Available water capacity	Soil reaction	Shrink-swell potential	Erosion factors K	Erosion factors T	Wind erodi-bility group	Organic matter
	In	Pct	g/cc	In/hr	In/in	pH					Pct
21B---------- Allouez	0-4	5-18	1.35-1.60	2.0-6.0	0.05-0.15	3.6-6.0	Low----------	0.17	3	8	1-2
	4-11	5-20	1.30-1.60	2.0-6.0	0.04-0.16	4.5-6.0	Low----------	0.17			
	11-60	0-5	1.55-1.70	>20	0.01-0.03	5.1-6.5	Low----------	0.10			
23B*, 23D*:											
Munising--------	0-9	5-10	1.25-1.65	2.0-6.0	0.08-0.12	4.5-6.0	Low----------	0.17	4	2	1-3
	9-21	5-12	1.35-1.65	0.6-2.0	0.09-0.17	4.5-6.0	Low----------	0.24			
	21-48	5-18	1.80-2.10	0.06-0.2	0.02-0.04	4.5-6.0	Low----------	0.24			
	48-80	10-25	1.40-1.65	0.6-2.0	0.02-0.04	5.6-6.5	Low----------	0.24			
Yalmer----------	0-23	0-10	1.30-1.60	6.0-20	0.07-0.12	3.6-6.0	Low----------	0.17	4	2	2-3
	23-39	0-12	1.75-2.05	0.06-0.2	0.02-0.04	3.6-6.0	Low----------	0.24			
	39-70	5-15	1.40-1.65	0.6-2.0	0.02-0.04	3.6-6.0	Low----------	0.24			
24B---------- Munising	0-9	5-10	1.25-1.65	2.0-6.0	0.08-0.12	4.5-6.0	Low----------	0.17	4	2	1-3
	9-21	5-12	1.35-1.65	0.6-2.0	0.09-0.17	4.5-6.0	Low----------	0.24			
	21-48	5-18	1.80-2.10	0.06-0.2	0.02-0.04	4.5-6.0	Low----------	0.24			
	48-80	10-25	1.40-1.65	0.6-2.0	0.02-0.04	5.6-6.5	Low----------	0.24			
24D---------- Munising	0-9	2-10	1.25-1.65	2.0-6.0	0.08-0.12	4.5-6.0	Low----------	0.17	4	2	1-3
	9-21	2-12	1.35-1.65	0.6-2.0	0.09-0.17	4.5-6.0	Low----------	0.24			
	21-48	5-18	1.80-2.10	0.06-0.2	0.02-0.04	4.5-6.0	Low----------	0.24			
	48-80	5-25	1.40-1.65	0.6-2.0	0.02-0.04	5.6-6.5	Low----------	0.24			
25A---------- Net	0-3	2-12	1.30-1.70	0.6-2.0	0.13-0.24	3.6-6.0	Low----------	0.28	4	8	5-15
	3-23	2-12	1.40-1.65	0.6-2.0	0.06-0.21	3.6-6.0	Low----------	0.28			
	23-39	2-10	1.75-2.05	0.06-0.2	0.01-0.02	3.6-6.0	Low----------	0.20			
	39-60	2-10	1.30-1.70	0.6-6.0	0.01-0.02	5.1-6.5	Low----------	0.20			
26---------- Witbeck	0-6	---	0.15-0.40	0.2-6.0	0.35-0.45	4.5-6.0	Low----------	----	5	8	42-65
	6-10	5-25	1.25-1.60	0.6-2.0	0.08-0.16	4.5-6.0	Low----------	0.24			
	10-22	5-20	1.55-1.75	0.6-2.0	0.04-0.18	4.5-6.0	Low----------	0.24			
	22-60	5-20	1.55-1.75	0.2-2.0	0.04-0.17	5.1-6.5	Low----------	0.24			
27B---------- Munising	0-9	5-10	1.25-1.65	2.0-6.0	0.08-0.12	4.5-6.0	Low----------	0.17	4	2	1-3
	9-21	5-12	1.35-1.65	0.6-2.0	0.09-0.17	4.5-6.0	Low----------	0.24			
	21-48	5-18	1.80-2.10	0.06-0.2	0.02-0.04	4.5-6.0	Low----------	0.24			
	48-80	10-25	1.40-1.65	0.6-2.0	0.02-0.04	5.6-6.5	Low----------	0.24			
29D*:											
Grayling--------	0-25	0-10	1.30-1.65	6.0-20	0.05-0.09	3.6-5.5	Low----------	0.15	5	1	---
	25-60	0-10	1.45-1.65	6.0-20	0.04-0.06	4.5-6.5	Low----------	0.15			
Kinross---------	0-12	0-10	1.00-1.20	6.0-20	0.04-0.06	3.6-6.0	Low----------	0.15	5	1	4-15
	12-60	0-10	1.50-1.70	6.0-20	0.04-0.06	3.6-6.5	Low----------	0.15			
30B, 30D, 30E, 30F---------- Kalkaska	0-9	0-10	1.25-1.45	6.0-20	0.05-0.09	3.6-6.0	Low----------	0.15	5	1	1-4
	9-19	0-10	1.35-1.45	6.0-20	0.06-0.08	3.6-6.0	Low----------	0.15			
	19-60	0-10	1.35-1.45	6.0-20	0.04-0.06	3.6-6.5	Low----------	0.15			
31B, 31D--------- Kallio	0-5	2-12	1.10-1.60	0.6-2.0	0.13-0.24	3.6-5.5	Low----------	0.28	4	8	1-3
	5-16	2-12	1.25-1.60	0.6-2.0	0.12-0.22	3.6-6.5	Low----------	0.43			
	16-34	5-30	1.75-2.05	0.06-0.2	0.03-0.05	3.6-6.5	Low----------	0.43			
	34-60	10-35	1.35-1.90	0.2-0.6	0.03-0.05	5.6-7.3	Low----------	0.43			
32A*:											
Kinross---------	0-12	0-10	1.00-1.20	6.0-20	0.04-0.06	3.6-6.0	Low----------	0.15	5	1	4-15
	12-60	0-10	1.50-1.70	6.0-20	0.04-0.06	3.6-6.5	Low----------	0.15			
Croswell--------	0-6	0-10	1.25-1.55	6.0-20	0.07-0.09	3.6-7.3	Low----------	0.15	5	1	.5-2
	6-22	0-10	1.25-1.60	6.0-20	0.06-0.08	3.6-7.3	Low----------	0.15			
	22-60	0-10	1.25-1.60	6.0-20	0.05-0.07	5.1-7.3	Low----------	0.15			

See footnote at end of table.

TABLE 16.--PHYSICAL AND CHEMICAL PROPERTIES OF THE SOILS--Continued

Soil name and map symbol	Depth	Clay	Moist bulk density	Permeability	Available water capacity	Soil reaction	Shrink-swell potential	Erosion factors K	Erosion factors T	Wind erodi-bility group	Organic matter
	In	Pct	g/cc	In/hr	In/in	pH					Pct
34B---------- Ontonagon	0-7	20-27	1.00-1.30	0.6-2.0	0.21-0.23	5.6-6.5	Low----------	0.37	3	6	1-3
	7-34	60-85	1.50-1.55	<0.06	0.11-0.13	5.6-6.5	High---------	0.28			
	34-60	50-85	1.35-1.45	<0.06	0.11-0.13	7.4-8.4	High---------	0.28			
35A---------- Rudyard	0-8	27-40	1.00-1.60	0.2-0.6	0.21-0.23	5.1-7.3	Moderate-----	0.37	3	4	3-4
	8-38	60-80	1.10-1.40	<0.06	0.11-0.13	5.1-7.3	High---------	0.37			
	38-70	60-80	1.40-1.50	<0.06	0.11-0.13	7.4-8.4	High---------	0.37			
36A---------- Skanee	0-8	5-15	1.30-1.60	2.0-6.0	0.09-0.18	4.5-6.0	Low----------	0.24	3	3	2-3
	8-18	8-18	1.40-1.70	0.6-2.0	0.11-0.17	4.5-6.0	Low----------	0.24			
	18-30	15-25	1.75-2.10	0.06-0.2	0.04-0.06	4.5-6.0	Low----------	0.24			
	30-60	8-18	1.40-1.70	0.6-2.0	0.02-0.04	4.5-6.0	Low----------	0.24			
37---------- Pickford	0-9	15-30	1.10-1.35	0.6-2.0	0.20-0.24	5.1-7.8	Low----------	0.37	3	5	2-5
	9-28	35-60	1.40-1.65	<0.06	0.09-0.13	5.1-7.8	Moderate-----	0.37			
	28-60	35-60	1.50-1.75	<0.06	0.08-0.12	7.4-8.4	Moderate-----	0.37			
38B---------- Froberg	0-7	18-27	1.50-1.65	0.2-2.0	0.21-0.24	5.1-6.5	Low----------	0.37	5	6	2-3
	7-28	40-80	1.40-1.70	<0.06	0.09-0.13	5.1-7.8	Moderate-----	0.28			
	28-60	12-25	1.60-1.75	0.2-2.0	0.11-0.17	5.1-6.5	Low----------	0.28			
39B*:											
Munising--------	0-9	5-10	1.25-1.65	2.0-6.0	0.08-0.12	4.5-6.0	Low----------	0.17	4	2	1-3
	9-21	5-12	1.35-1.65	0.6-2.0	0.09-0.17	4.5-6.0	Low----------	0.24			
	21-48	5-18	1.80-2.10	0.06-0.2	0.02-0.04	4.5-6.0	Low----------	0.24			
	48-80	10-25	1.40-1.65	0.6-2.0	0.02-0.04	5.6-6.5	Low----------	0.24			
Skanee----------	0-8	5-15	1.30-1.60	2.0-6.0	0.09-0.18	4.5-6.0	Low----------	0.24	3	3	2-3
	8-18	8-18	1.40-1.70	0.6-2.0	0.11-0.17	4.5-6.0	Low----------	0.24			
	18-30	15-25	1.75-2.10	0.06-0.2	0.04-0.06	4.5-6.0	Low----------	0.24			
	30-60	8-18	1.40-1.70	0.6-2.0	0.02-0.04	4.5-6.0	Low----------	0.24			
43A---------- Moquah	0-3	12-18	1.35-1.55	0.6-2.0	0.20-0.24	4.5-7.8	Low----------	0.32	5	5	2-3
	3-60	8-18	1.55-1.70	0.6-2.0	0.12-0.22	4.5-7.8	Low----------	0.24			
44B*, 44D*, 44E*, 44F*:											
Michigamme-----	0-4	1-10	1.15-1.65	0.6-2.0	0.08-0.24	3.6-6.5	Low----------	0.28	4	8	1-3
	4-24	1-15	1.25-1.80	0.6-2.0	0.07-0.22	3.6-6.5	Low----------	0.28			
	24-31	1-10	1.30-1.85	0.6-2.0	0.05-0.16	3.6-6.5	Low----------	0.20			
	31	---	---	---	---	---	----------	----			
Rock outcrop.											
47B---------- Yalmer	0-23	0-10	1.30-1.60	6.0-20	0.07-0.12	3.6-6.0	Low----------	0.17	4	2	2-3
	23-39	0-12	1.75-2.05	0.06-0.2	0.02-0.04	3.6-6.0	Low----------	0.24			
	39-70	5-15	1.40-1.65	0.6-2.0	0.02-0.04	3.6-6.0	Low----------	0.24			
48B---------- Rousseau	0-4	0-10	1.30-1.55	6.0-20	0.07-0.09	4.5-6.0	Low----------	0.15	5	1	1-2
	4-25	0-10	1.30-1.60	6.0-20	0.06-0.08	4.5-6.5	Low----------	0.15			
	25-60	0-10	1.50-1.65	6.0-20	0.05-0.07	5.6-6.5	Low----------	0.15			
49---------- Gay	0-7	5-15	0.90-1.60	0.6-2.0	0.10-0.18	5.1-6.5	Low----------	0.24	5	2	8-25
	7-11	5-15	1.15-1.60	0.6-2.0	0.07-0.14	5.1-6.5	Low----------	0.28			
	11-30	5-25	1.30-1.80	0.6-2.0	0.10-0.18	5.1-6.5	Low----------	0.28			
	30-60	10-25	1.80-1.95	0.6-2.0	0.09-0.17	5.6-7.3	Low----------	0.28			
50B, 50D--------- Abbaye	0-11	5-15	1.30-1.65	0.6-2.0	0.09-0.12	3.6-6.0	Low----------	0.24	4	2	.5-3
	11-23	5-15	1.35-1.65	0.6-2.0	0.11-0.15	4.5-6.0	Low----------	0.24			
	23-30	5-15	1.35-1.70	0.6-2.0	0.08-0.14	4.5-6.0	Low----------	0.24			
	30	---	---	---	---	---	----------	----			

See footnote at end of table.

TABLE 16.--PHYSICAL AND CHEMICAL PROPERTIES OF THE SOILS--Continued

Soil name and map symbol	Depth	Clay	Moist bulk density	Permeability	Available water capacity	Soil reaction	Shrink-swell potential	Erosion factors K	Erosion factors T	Wind erodi-bility group	Organic matter
	In	Pct	g/cc	In/hr	In/in	pH					Pct
51A---------- Zeba	0-5	2-12	1.30-1.70	0.6-2.0	0.07-0.18	4.5-6.0	Low----------	0.24	4	3	2-4
	5-33	5-15	1.40-1.80	0.6-2.0	0.07-0.18	4.5-6.0	Low----------	0.24			
	33	---	---	---	---	---	----------	----			
52---------- Gay Variant	0-6	2-12	1.30-1.60	2.0-6.0	0.07-0.15	4.5-5.0	Low----------	0.17	4	8	6-15
	6-13	3-12	1.30-1.60	0.6-2.0	0.07-0.12	4.5-5.0	Low----------	0.24			
	13-24	5-15	1.30-1.70	0.6-2.0	0.09-0.11	5.1-6.0	Low----------	0.24			
	24-29	5-15	1.30-1.70	0.6-2.0	0.06-0.11	5.1-6.0	Low----------	0.24			
	29	---	---	---	---	---	----------	----			
53B---------- Onota Variant	0-15	0-10	1.35-1.45	6.0-20	0.01-0.05	4.5-6.0	Low----------	0.10	2	8	.5-3
	15	---	---	---	---	---	----------	----			
54B, 54D--------- Waiska	0-3	0-5	1.35-1.45	6.0-20	0.02-0.04	4.5-6.0	Low----------	0.15	2	1	---
	3-10	2-12	1.30-1.60	6.0-20	0.04-0.08	4.5-6.0	Low----------	0.10			
	10-60	0-5	1.45-1.60	>20	0.01-0.03	4.5-6.0	Low----------	0.10			
56A---------- Deerton Variant	0-31	0-10	0.60-1.60	2.0-20	0.05-0.09	4.5-6.0	Low----------	0.17	4	2	2-8
	31	---	---	---	---	---	----------	----			
57A*:											
Assinins--------	0-20	0-10	1.25-1.60	6.0-20	0.04-0.08	4.5-6.0	Low----------	0.15	5	1	1-3
	20-29	5-22	1.50-1.90	0.2-2.0	0.10-0.13	5.1-6.0	Low----------	0.37			
	29-60	5-18	1.50-1.90	0.6-2.0	0.10-0.16	4.5-6.0	Low----------	0.24			
Skanee----------	0-8	5-15	1.30-1.60	2.0-6.0	0.09-0.18	4.5-6.0	Low----------	0.24	3	3	2-3
	8-18	8-18	1.40-1.70	0.6-2.0	0.11-0.17	4.5-6.0	Low----------	0.24			
	18-30	15-25	1.75-2.10	0.06-0.2	0.04-0.06	4.5-6.0	Low----------	0.24			
	30-60	8-18	1.40-1.70	0.6-2.0	0.02-0.04	4.5-6.0	Low----------	0.24			
59B, 59D, 59E, 59F---------- Amasa	0-3	3-12	1.20-1.60	0.6-2.0	0.08-0.20	3.6-6.0	Low----------	0.28	4	8	1-2
	3-27	3-12	1.20-1.70	0.6-2.0	0.10-0.22	3.6-6.0	Low----------	0.43			
	27-60	0-5	1.50-1.65	>20	0.02-0.04	3.6-6.5	Low----------	0.10			
60B---------- Fence	0-3	8-20	1.20-1.35	0.6-2.0	0.22-0.24	3.6-6.5	Low----------	0.37	5	5	1-2
	3-9	5-18	1.50-1.60	0.2-0.6	0.11-0.22	3.6-6.5	Low----------	0.37			
	9-58	8-18	1.50-1.60	0.2-0.6	0.17-0.22	3.6-6.5	Low----------	0.37			
	58-70	5-15	1.50-1.60	0.2-0.6	0.17-0.22	4.5-7.8	Low----------	0.37			
61B, 61D--------- Ishpeming	0-31	2-15	1.30-1.60	6.0-20	0.08-0.11	4.5-6.5	Low----------	0.17	4	2	1-2
	31-35	---	---	---	---	---	----------	----			
65B---------- Ocqueoc	0-22	0-10	1.15-1.60	6.0-20	0.06-0.12	4.5-6.5	Low----------	0.15	5	1	2-3
	22-60	5-27	1.30-1.90	0.2-0.6	0.05-0.21	5.6-7.8	Moderate-----	0.15			
66B*:											
Champion--------	0-4	2-10	1.10-1.65	0.6-2.0	0.09-0.20	3.6-6.0	Low----------	0.28	4	8	1-3
	4-21	2-15	1.25-1.65	0.6-2.0	0.12-0.20	3.6-6.0	Low----------	0.28			
	21-53	2-12	1.75-2.05	0.06-0.2	0.01-0.04	3.6-6.0	Low----------	0.20			
	53-60	1-12	1.30-1.65	0.6-6.0	0.01-0.04	3.6-6.0	Low----------	0.20			
Net----------	0-3	2-12	1.30-1.70	0.6-2.0	0.13-0.24	3.6-6.0	Low----------	0.28	4	8	5-15
	3-23	2-12	1.40-1.65	0.6-2.0	0.06-0.21	3.6-6.0	Low----------	0.28			
	23-39	2-10	1.75-2.05	0.06-0.2	0.01-0.02	3.6-6.0	Low----------	0.20			
	39-60	2-10	1.30-1.70	0.6-6.0	0.01-0.02	5.1-6.5	Low----------	0.20			
67*:											
Witbeck---------	0-6	---	0.15-0.40	0.2-6.0	0.35-0.45	4.5-6.0	Low----------	----	5	8	42-65
	6-10	5-25	1.25-1.60	0.6-2.0	0.08-0.16	4.5-6.0	Low----------	0.24			
	10-22	5-20	1.55-1.75	0.6-2.0	0.04-0.18	4.5-6.0	Low----------	0.24			
	22-60	5-20	1.55-1.75	0.2-2.0	0.04-0.17	5.1-6.5	Low----------	0.24			

See footnote at end of table.

TABLE 16.--PHYSICAL AND CHEMICAL PROPERTIES OF THE SOILS--Continued

Soil name and map symbol	Depth	Clay	Moist bulk density	Permeability	Available water capacity	Soil reaction	Shrink-swell potential	Erosion factors K	Erosion factors T	Wind erodi-bility group	Organic matter
	In	Pct	g/cc	In/hr	In/in	pH					Pct
67*:											
Tacoosh---------	0-8	---	0.10-0.20	0.2-6.0	0.35-0.45	5.1-7.3	----------	----	2	2	>75
	8-31	---	0.10-0.20	0.6-6.0	0.45-0.55	5.1-7.3	----------	----			
	31-60	5-35	1.40-2.00	0.2-2.0	0.12-0.20	5.6-7.8	Low----------	----			
68B, 68D--------- Amasa	0-3	3-12	1.20-1.60	0.6-2.0	0.15-0.24	3.6-6.0	Low----------	0.37	4	3	1-2
	3-27	3-12	1.20-1.70	0.6-2.0	0.14-0.22	3.6-6.0	Low----------	0.37			
	27-60	0-5	1.50-1.65	>20	0.02-0.04	3.6-6.5	Low----------	0.10			
69E*, 69F*:											
Yalmer----------	0-23	0-10	1.30-1.60	6.0-20	0.07-0.12	3.6-6.0	Low----------	0.17	4	2	2-3
	23-39	0-12	1.75-2.05	0.06-0.2	0.02-0.04	3.6-6.0	Low----------	0.24			
	39-70	2-15	1.40-1.50	0.6-2.0	0.02-0.04	3.6-6.0	Low----------	0.24			
Munising--------	0-9	2-10	1.25-1.65	2.0-6.0	0.08-0.12	4.5-6.0	Low----------	0.17	4	2	1-3
	9-21	2-12	1.35-1.65	0.6-2.0	0.09-0.17	4.5-6.0	Low----------	0.24			
	21-48	5-18	1.80-2.10	0.06-0.2	0.02-0.04	4.5-6.0	Low----------	0.24			
	48-80	5-25	1.40-1.65	0.6-2.0	0.02-0.04	5.6-6.5	Low----------	0.24			
70---------- Winterfield	0-9	2-15	0.90-1.50	2.0-6.0	0.12-0.14	5.1-7.3	Low----------	0.20	5	3	1-3
	9-33	0-15	1.45-1.60	6.0-20	0.06-0.11	5.6-7.3	Low----------	0.17			
	33-60	0-10	1.55-1.65	6.0-20	0.04-0.10	5.6-7.3	Low----------	0.17			
71A---------- Pelkie	0-8	5-12	1.30-1.55	2.0-6.0	0.08-0.12	4.5-6.5	Low----------	0.24	5	2	1-2
	8-60	0-10	1.25-1.65	6.0-20	0.05-0.09	4.5-6.5	Low----------	0.15			
72---------- Sturgeon	0-8	2-15	1.40-1.65	0.6-2.0	0.22-0.24	4.5-6.5	Low----------	0.37	5	5	2-3
	8-30	5-18	1.50-1.70	0.6-2.0	0.10-0.22	4.5-6.5	Low----------	0.28			
	30-60	0-10	1.50-1.65	6.0-20	0.05-0.07	4.5-6.5	Low----------	0.15			
73---------- Arnheim	0-5	12-18	1.15-1.60	0.6-6.0	0.12-0.45	5.1-7.3	Low----------	0.24	5	8	2-4
	5-60	5-18	1.50-1.80	0.6-2.0	0.05-0.22	5.1-7.3	Low----------	0.37			
74B---------- Waiska Variant	0-60	0-5	1.30-1.65	>20	0.01-0.03	4.5-6.0	Low----------	0.10	2	8	1-2
75D---------- Fence	0-3	8-20	1.20-1.35	0.6-2.0	0.22-0.24	3.6-6.5	Low----------	0.37	5	5	1-2
	3-9	5-18	1.50-1.60	0.2-0.6	0.11-0.22	3.6-6.5	Low----------	0.37			
	9-58	8-18	1.50-1.60	0.2-0.6	0.17-0.22	3.6-6.5	Low----------	0.37			
	58-70	5-15	1.50-1.60	0.2-0.6	0.17-0.22	4.5-7.8	Low----------	0.37			
76A---------- Allendale	0-9	0-12	1.25-1.40	6.0-20	0.09-0.12	5.1-6.0	Low----------	0.17	4	2	1-3
	9-27	0-15	1.35-1.45	6.0-20	0.06-0.10	5.1-6.0	Low----------	0.17			
	27-60	40-60	1.45-1.75	0.06-0.2	0.08-0.12	6.5-7.8	Moderate-----	0.32			
78B*, 78D*:											
Champion--------	0-4	2-10	1.10-1.65	0.6-2.0	0.09-0.20	3.6-6.0	Low----------	0.28	4	8	1-3
	4-21	2-15	1.25-1.65	0.6-2.0	0.12-0.20	3.6-6.0	Low----------	0.28			
	21-53	2-12	1.75-2.05	0.06-0.2	0.01-0.04	3.6-6.0	Low----------	0.20			
	53-60	1-12	1.30-1.65	0.6-6.0	0.01-0.04	3.6-6.0	Low----------	0.20			
Michigamme------	0-4	1-10	1.15-1.65	0.6-2.0	0.08-0.24	3.6-6.5	Low----------	0.28	4	8	1-3
	4-24	1-15	1.25-1.80	0.6-2.0	0.07-0.22	3.6-6.5	Low----------	0.28			
	24-31	1-10	1.30-1.85	0.6-2.0	0.05-0.16	3.6-6.5	Low----------	0.20			
	31	---	---	---	---	---	----------	----			
78E*:											
Champion--------	0-4	2-10	1.10-1.65	0.6-2.0	0.09-0.22	3.6-6.0	Low----------	0.28	4	8	1-3
	4-21	2-15	1.25-1.65	0.6-2.0	0.12-0.20	3.6-6.0	Low----------	0.28			
	21-53	2-12	1.75-2.05	0.06-0.2	0.01-0.04	3.6-6.0	Low----------	0.20			
	53-60	1-12	1.30-1.65	0.6-6.0	0.01-0.04	3.6-6.0	Low----------	0.20			
Michigamme------	0-4	1-10	1.15-1.65	0.6-2.0	0.08-0.24	3.6-6.5	Low----------	0.28	4	8	1-3
	4-24	1-15	1.25-1.80	0.6-2.0	0.07-0.22	3.6-6.5	Low----------	0.28			
	24-31	1-10	1.30-1.85	0.6-2.0	0.05-0.16	3.6-6.5	Low----------	0.20			
	31	---	---	---	---	---	----------	----			

See footnote at end of table.

TABLE 16.--PHYSICAL AND CHEMICAL PROPERTIES OF THE SOILS--Continued

Soil name and map symbol	Depth	Clay	Moist bulk density	Permeability	Available water capacity	Soil reaction	Shrink-swell potential	Erosion factors K	Erosion factors T	Wind erodi-bility group	Organic matter
	In	Pct	g/cc	In/hr	In/in	pH					Pct
79B, 79D--------- Nunica	0-6	8-20	1.35-1.60	0.6-2.0	0.20-0.24	4.5-7.3	Low----------	0.37	5	5	1-3
	6-25	18-35	1.35-1.60	0.2-0.6	0.18-0.22	4.5-7.3	Low----------	0.37			
	25-60	5-35	1.30-1.60	0.2-2.0	0.14-0.20	5.6-8.4	Low----------	0.37			
80A---------- Bowers	0-11	20-30	1.40-1.70	0.6-2.0	0.20-0.22	5.6-7.3	Low----------	0.32	5	5	1-3
	11-22	30-40	1.45-1.60	0.2-0.6	0.12-0.17	5.6-7.3	Moderate-----	0.32			
	22-25	35-45	1.45-1.60	0.2-0.6	0.18-0.20	5.6-7.3	Moderate-----	0.32			
	25-60	30-40	1.50-1.65	0.2-0.6	0.18-0.22	6.1-7.8	Moderate-----	0.32			
81A---------- Burt Variant	0-13	0-10	1.35-1.45	6.0-20	0.01-0.05	4.5-6.5	Low----------	0.10	2	8	2-8
	13	---	---	---	---	---	----------	----			
82---------- Roscommon Variant	0-5	0-5	1.45-1.70	6.0-20	0.20-0.30	4.5-5.5	Low----------	0.15	4	8	8-12
	5-31	0-10	1.45-1.70	6.0-20	0.06-0.10	4.5-5.5	Low----------	0.15			
	31	---	---	---	---	---	----------	----			
83E*:											
Nunica----------	0-6	8-20	1.35-1.60	0.6-2.0	0.20-0.24	4.5-7.3	Low----------	0.37	5	5	1-3
	6-25	18-35	1.35-1.60	0.2-0.6	0.18-0.22	4.5-7.3	Low----------	0.37			
	25-60	5-35	1.30-1.60	0.2-2.0	0.14-0.20	5.6-8.4	Low----------	0.37			
Ontonagon-------	0-7	20-27	1.00-1.30	0.6-2.0	0.21-0.23	4.5-6.0	Low----------	0.37	3	6	1-3
	7-34	60-85	1.50-1.55	<0.06	0.11-0.13	4.5-7.3	High----------	0.28			
	34-60	55-85	1.35-1.45	<0.06	0.11-0.13	7.4-8.4	High----------	0.28			
84A---------- Channing	0-5	2-12	1.10-1.65	0.6-2.0	0.12-0.18	4.5-6.0	Low----------	0.24	4	3	1-3
	5-22	2-15	1.25-1.70	0.6-2.0	0.11-0.16	4.5-6.0	Low----------	0.24			
	22-60	0-5	1.50-1.65	>20	0.02-0.04	5.1-6.5	Low----------	0.10			
86A*:											
Net----------	0-3	2-12	1.30-1.70	0.6-2.0	0.13-0.24	3.6-6.0	Low----------	0.28	4	8	5-15
	3-23	2-12	1.40-1.65	0.6-2.0	0.06-0.21	3.6-6.0	Low----------	0.28			
	23-39	2-10	1.75-2.05	0.06-0.2	0.01-0.02	3.6-6.0	Low----------	0.20			
	39-60	2-10	1.30-1.70	0.6-6.0	0.01-0.02	5.1-6.5	Low----------	0.20			
Witbeck---------	0-6	---	0.15-0.40	0.2-6.0	0.35-0.45	4.5-6.0	Low----------	----	5	8	42-65
	6-10	5-25	1.25-1.60	0.6-2.0	0.08-0.16	4.5-6.0	Low----------	0.24			
	10-22	5-20	1.55-1.75	0.6-2.0	0.04-0.18	4.5-6.0	Low----------	0.24			
	22-60	5-20	1.55-1.75	0.2-2.0	0.04-0.17	5.1-6.5	Low----------	0.24			
87A*:											
Skanee----------	0-8	5-15	1.30-1.60	2.0-6.0	0.09-0.18	4.5-6.0	Low----------	0.24	3	3	2-3
	8-18	8-18	1.40-1.70	0.6-2.0	0.11-0.17	4.5-6.0	Low----------	0.24			
	18-30	15-25	1.75-2.10	0.06-0.2	0.04-0.06	4.5-6.0	Low----------	0.24			
	30-60	8-18	1.40-1.70	0.6-2.0	0.02-0.04	4.5-6.0	Low----------	0.24			
Gay----------	0-7	5-15	0.90-1.60	0.6-2.0	0.10-0.18	5.1-6.5	Low----------	0.24	5	2	8-25
	7-11	5-15	1.15-1.60	0.6-2.0	0.07-0.14	5.1-6.5	Low----------	0.28			
	11-30	5-22	1.30-1.80	0.6-2.0	0.10-0.18	5.1-6.5	Low----------	0.28			
	30-60	10-25	1.80-1.95	0.6-2.0	0.09-0.17	5.6-7.3	Low----------	0.28			
88B*, 88D*, 88E*:											
Munising--------	0-9	5-10	1.25-1.65	2.0-6.0	0.08-0.12	4.5-6.0	Low----------	0.17	4	2	1-3
	9-21	5-12	1.35-1.65	0.6-2.0	0.09-0.17	4.5-6.0	Low----------	0.24			
	21-48	5-18	1.80-2.10	0.06-0.2	0.02-0.04	4.5-6.0	Low----------	0.24			
	48-80	10-25	1.40-1.65	0.6-2.0	0.02-0.04	5.6-6.5	Low----------	0.24			
Yalmer----------	0-23	0-10	1.30-1.60	6.0-20	0.07-0.12	3.6-6.0	Low----------	0.17	4	2	2-3
	23-39	0-12	1.75-2.05	0.06-0.2	0.02-0.04	3.6-6.0	Low----------	0.24			
	39-70	5-15	1.40-1.65	0.6-2.0	0.02-0.04	3.6-6.0	Low----------	0.24			

See footnote at end of table.

TABLE 16.--PHYSICAL AND CHEMICAL PROPERTIES OF THE SOILS--Continued

Soil name and map symbol	Depth	Clay	Moist bulk density	Permeability	Available water capacity	Soil reaction	Shrink-swell potential	Erosion factors K	Erosion factors T	Wind erodi-bility group	Organic matter
	In	Pct	g/cc	In/hr	In/in	pH					Pct
91B*, 91D*, 91E*, 92B*, 92D*, 92E*:											
Keweenaw	0-4	2-15	1.10-1.60	2.0-6.0	0.09-0.12	4.5-6.5	Low	0.17	5	2	.5-2
	4-18	2-15	1.35-1.70	2.0-6.0	0.08-0.11	4.5-6.5	Low	0.17			
	18-35	0-15	1.30-1.60	2.0-6.0	0.05-0.11	4.5-6.5	Low	0.17			
	35-60	0-15	1.50-1.70	0.6-6.0	0.06-0.14	4.5-6.5	Low	0.17			
Kalkaska	0-9	0-10	1.25-1.45	6.0-20	0.05-0.09	3.6-6.0	Low	0.15	5	1	1-4
	9-19	0-10	1.35-1.45	6.0-20	0.06-0.08	3.6-6.0	Low	0.15			
	19-60	0-10	1.35-1.45	6.0-20	0.04-0.06	3.6-6.5	Low	0.15			
93B*, 93D*:											
Deerton	0-13	2-10	1.30-1.60	6.0-20	0.06-0.15	3.6-6.0	Low	0.15	4	1	.5-2
	13-36	3-12	1.30-1.60	2.0-20	0.05-0.10	3.6-6.0	Low	0.15			
	36-40	---	---	---	---	---	---	---			
Abbaye	0-11	5-15	1.30-1.65	0.6-2.0	0.09-0.12	3.6-6.0	Low	0.24	4	2	.5-3
	11-23	5-15	1.35-1.65	0.6-2.0	0.11-0.15	4.5-6.0	Low	0.24			
	23-30	5-15	1.35-1.70	0.6-2.0	0.08-0.14	4.5-6.0	Low	0.24			
	30	---	---	---	---	---	---	---			
94B Deerton	0-13	2-10	1.30-1.60	6.0-20	0.06-0.15	3.6-6.0	Low	0.15	4	1	.5-2
	13-36	3-12	1.30-1.60	2.0-20	0.05-0.10	3.6-6.0	Low	0.15			
	36-40	---	---	---	---	---	---	---			
95B, 95D Amasa	0-3	3-12	1.20-1.60	0.6-2.0	0.16-0.24	4.5-6.0	Low	0.37	4	3	1-2
	3-27	3-12	1.20-1.70	0.6-2.0	0.15-0.22	4.5-6.0	Low	0.37			
	27-60	0-5	1.50-1.65	6.0-20	0.02-0.04	5.6-6.5	Low	0.10			
96A Richter Variant	0-10	0-15	1.30-1.65	0.2-0.6	0.10-0.22	4.5-6.0	Low	0.24	5	3	1-3
	10-36	2-12	1.30-1.70	0.2-0.6	0.09-0.19	4.5-6.0	Low	0.24			
	36-60	0-15	1.40-1.65	0.2-0.6	0.05-0.22	5.1-7.8	Low	0.24			
98A*:											
Burt Variant	0-13	0-10	1.35-1.45	6.0-20	0.01-0.05	4.5-6.5	Low	0.10	2	8	2-8
	13	---	---	---	---	---	---	---			
Burt	0-5	0-10	1.30-1.60	0.6-6.0	0.30-0.40	4.5-6.0	Low	0.10	2	2	8-20
	5-19	0-8	1.30-1.60	6.0-20	0.04-0.08	4.5-6.5	Low	0.15			
	19	---	---	---	---	---	---	---			
99B*, 99D*:											
Rubicon	0-7	0-5	1.35-1.45	6.0-20	0.05-0.09	4.5-6.0	Low	0.15	5	1	.5-1
	7-13	0-10	1.30-1.60	6.0-20	0.04-0.08	4.5-6.0	Low	0.15			
	13-60	0-5	1.40-1.55	6.0-20	0.04-0.06	5.6-6.5	Low	0.15			
Rousseau	0-4	0-10	1.30-1.55	6.0-20	0.07-0.09	5.1-6.0	Low	0.15	5	1	1-2
	4-25	0-10	1.30-1.60	6.0-20	0.06-0.08	4.5-6.5	Low	0.15			
	25-60	0-10	1.50-1.65	6.0-20	0.05-0.07	5.6-6.5	Low	0.15			
Ocqueoc	0-22	0-15	1.15-1.60	6.0-20	0.06-0.12	5.1-6.5	Low	0.15	5	1	2-3
	22-60	10-27	1.30-1.90	0.2-0.6	0.05-0.21	5.6-7.8	Moderate	0.15			
100B, 100D, 100E- Amasa	0-3	3-12	1.20-1.60	0.6-2.0	0.08-0.20	3.6-6.0	Low	0.28	4	8	1-2
	3-27	3-12	1.20-1.70	0.6-2.0	0.10-0.22	3.6-6.0	Low	0.43			
	27-60	0-5	1.50-1.65	>20	0.02-0.04	3.6-6.5	Low	0.10			
101E*, 101F*:											
Peshekee	0-5	2-10	1.10-1.60	0.6-2.0	0.09-0.24	4.5-6.0	Low	0.28	2	8	1-3
	5-18	2-15	1.20-1.60	0.6-2.0	0.08-0.22	4.5-6.0	Low	0.28			
	18	---	---	---	---	---	---	---			
Rock outcrop.											

See footnote at end of table.

TABLE 16.--PHYSICAL AND CHEMICAL PROPERTIES OF THE SOILS--Continued

Soil name and map symbol	Depth	Clay	Moist bulk density	Permeability	Available water capacity	Soil reaction	Shrink-swell potential	Erosion factors K	Erosion factors T	Wind erodi-bility group	Organic matter
	In	Pct	g/cc	In/hr	In/in	pH					Pct
102A---------- Channing	0-5	2-12	1.10-1.65	0.6-2.0	0.07-0.18	4.5-6.0	Low----------	0.17	4	8	1-3
	5-22	2-15	1.25-1.70	0.6-2.0	0.09-0.19	4.5-6.0	Low----------	0.24			
	22-60	0-5	1.50-1.65	>20	0.02-0.04	5.1-6.5	Low----------	0.10			
106B---------- Yalmer	0-23	0-10	1.30-1.60	6.0-20	0.07-0.12	3.6-6.0	Low----------	0.17	4	2	2-3
	23-39	0-12	1.75-2.05	0.06-0.2	0.02-0.04	3.6-6.0	Low----------	0.24			
	39-70	5-15	1.40-1.65	0.6-2.0	0.02-0.04	3.6-6.0	Low----------	0.24			
107F*:											
Rousseau--------	0-4	0-10	1.30-1.55	6.0-20	0.07-0.09	4.5-6.0	Low----------	0.15	5	1	1-2
	4-25	0-10	1.30-1.60	6.0-20	0.06-0.08	4.5-6.5	Low----------	0.15			
	25-60	0-10	1.50-1.65	6.0-20	0.05-0.07	5.6-6.5	Low----------	0.15			
Ocqueoc---------	0-22	0-10	1.15-1.60	6.0-20	0.06-0.12	4.5-6.5	Low----------	0.15	5	1	2-3
	22-60	5-27	1.30-1.90	0.2-0.6	0.05-0.21	5.6-7.8	Moderate-----	0.15			
108B*:											
Champion--------	0-4	2-10	1.10-1.65	0.6-2.0	0.09-0.20	3.6-6.0	Low----------	0.28	4	8	1-3
	4-21	2-15	1.25-1.65	0.6-2.0	0.12-0.20	3.6-6.0	Low----------	0.28			
	21-53	2-12	1.75-2.05	0.06-0.2	0.01-0.04	3.6-6.0	Low----------	0.20			
	53-60	1-12	1.30-1.65	0.6-6.0	0.01-0.04	3.6-6.0	Low----------	0.20			
Net----------	0-3	2-12	1.30-1.70	0.6-2.0	0.13-0.24	3.6-6.0	Low----------	0.28	4	8	5-15
	3-23	2-12	1.40-1.65	0.6-2.0	0.06-0.21	3.6-6.0	Low----------	0.28			
	23-39	2-10	1.75-2.05	0.06-0.2	0.01-0.02	3.6-6.0	Low----------	0.20			
	39-60	2-10	1.30-1.70	0.6-6.0	0.01-0.02	5.1-6.5	Low----------	0.20			
Michigamme------	0-4	1-10	1.15-1.65	0.6-2.0	0.08-0.24	3.6-6.5	Low----------	0.28	4	8	1-3
	4-24	1-15	1.25-1.80	0.6-2.0	0.07-0.22	3.6-6.5	Low----------	0.28			
	24-31	1-10	1.30-1.85	0.6-2.0	0.05-0.16	3.6-6.5	Low----------	0.20			
	31	---	---	---	---	---	----------	----			
109F*:											
Rousseau--------	0-4	0-10	1.30-1.55	6.0-20	0.07-0.09	4.5-6.0	Low----------	0.15	5	1	1-2
	4-25	0-10	1.30-1.60	6.0-20	0.06-0.08	4.5-6.5	Low----------	0.15			
	25-60	0-10	1.50-1.65	6.0-20	0.05-0.07	5.6-6.5	Low----------	0.15			
Fence----------	0-3	8-20	1.20-1.35	0.6-2.0	0.22-0.24	3.6-6.5	Low----------	0.37	5	5	1-2
	3-9	5-18	1.50-1.60	0.2-0.6	0.11-0.22	3.6-6.5	Low----------	0.37			
	9-58	8-18	1.50-1.60	0.2-0.6	0.17-0.22	3.6-6.5	Low----------	0.37			
	58-70	5-15	1.50-1.60	0.2-0.6	0.17-0.22	4.5-7.8	Low----------	0.37			
Ocqueoc---------	0-22	0-10	1.15-1.60	6.0-20	0.06-0.12	4.5-6.5	Low----------	0.15	5	1	2-3
	22-60	5-27	1.30-1.90	0.2-0.6	0.05-0.21	5.6-7.8	Moderate-----	0.15			
110E*:											
Ishpeming-------	0-31	2-15	1.30-1.60	6.0-20	0.08-0.11	4.5-6.5	Low----------	0.17	4	2	1-2
	31-35	---	---	---	---	---	----------	----			
Rock outcrop.											
111B*:											
Yalmer----------	0-23	0-10	1.30-1.60	6.0-20	0.07-0.12	3.6-6.0	Low----------	0.17	4	2	2-3
	23-39	0-12	1.75-2.05	0.06-0.2	0.02-0.04	3.6-6.0	Low----------	0.24			
	39-70	5-15	1.40-1.65	0.6-2.0	0.02-0.04	3.6-6.0	Low----------	0.24			
Assinins--------	0-20	0-10	1.25-1.60	6.0-20	0.04-0.08	4.5-6.0	Low----------	0.15	5	1	1-3
	20-29	5-22	1.50-1.90	0.2-2.0	0.10-0.13	5.1-6.0	Low----------	0.37			
	29-60	5-18	1.50-1.90	0.6-2.0	0.10-0.16	4.5-6.0	Low----------	0.24			
112A---------- Assinins	0-20	0-10	1.25-1.60	6.0-20	0.04-0.08	4.5-6.0	Low----------	0.15	5	1	1-3
	20-29	5-22	1.50-1.90	0.2-2.0	0.10-0.13	5.1-6.0	Low----------	0.37			
	29-60	5-18	1.50-1.90	0.6-2.0	0.10-0.16	4.5-6.0	Low----------	0.24			

See footnote at end of table.

TABLE 16.--PHYSICAL AND CHEMICAL PROPERTIES OF THE SOILS--Continued

Soil name and map symbol	Depth	Clay	Moist bulk density	Permeability	Available water capacity	Soil reaction	Shrink-swell potential	Erosion factors K	Erosion factors T	Wind erodi-bility group	Organic matter
	In	Pct	g/cc	In/hr	In/in	pH					Pct
113B, 113D------- Petticoat	0-10	3-15	1.30-1.55	0.6-2.0	0.14-0.20	3.6-6.5	Low----------	0.28	5	8	1-3
	10-38	3-15	1.40-1.70	0.6-2.0	0.10-0.20	4.5-6.5	Low----------	0.43			
	38-60	2-10	1.45-1.70	2.0-6.0	0.04-0.08	5.1-6.5	Low----------	0.10			
114B, 114E------- Peshekee Variant	0-3	5-12	1.30-1.80	0.6-2.0	0.10-0.13	5.1-6.0	Low----------	0.28	2	8	1-3
	3-12	5-12	1.30-1.80	0.6-2.0	0.10-0.13	5.1-6.0	Low----------	0.28			
	12	---	---	---	---	---	----------	----			
115D*:											
Munising--------	0-9	5-12	1.30-1.65	2.0-6.0	0.10-0.18	4.5-6.0	Low----------	0.24	4	3	1-3
	9-21	5-12	1.35-1.65	0.6-2.0	0.09-0.17	4.5-6.0	Low----------	0.24			
	21-48	5-18	1.80-2.10	0.06-0.2	0.02-0.04	4.5-6.0	Low----------	0.24			
	48-80	10-25	1.40-1.65	0.6-2.0	0.02-0.04	5.6-6.5	Low----------	0.24			
Michigamme------	0-4	1-10	1.15-1.65	0.6-2.0	0.08-0.24	3.6-6.5	Low----------	0.28	4	8	1-3
	4-24	1-15	1.25-1.80	0.6-2.0	0.07-0.22	3.6-6.5	Low----------	0.28			
	24-31	1-10	1.30-1.85	0.6-2.0	0.05-0.16	3.6-6.5	Low----------	0.20			
	31	---	---	---	---	---	----------	----			
115E*:											
Munising--------	0-9	2-12	1.30-1.65	2.0-6.0	0.10-0.18	4.5-6.0	Low----------	0.24	4	3	1-3
	9-21	2-12	1.35-1.65	0.6-2.0	0.09-0.17	4.5-6.0	Low----------	0.24			
	21-48	5-18	1.80-2.10	0.06-0.2	0.02-0.04	4.5-6.0	Low----------	0.24			
	48-80	5-25	1.40-1.65	0.6-2.0	0.02-0.04	5.6-6.5	Low----------	0.24			
Michigamme------	0-4	1-10	1.15-1.65	0.6-2.0	0.08-0.24	3.6-6.5	Low----------	0.28	4	8	1-3
	4-24	1-15	1.25-1.80	0.6-2.0	0.07-0.22	3.6-6.5	Low----------	0.28			
	24-31	1-10	1.30-1.85	0.6-2.0	0.05-0.16	3.6-6.5	Low----------	0.20			
	31	---	---	---	---	---	----------	----			

* See description of the map unit for composition and behavior characteristics of the map unit.

TABLE 17.--SOIL AND WATER FEATURES

("Flooding" and "water table" and terms such as "brief," "apparent," and "perched" are explained in the text. The symbol < means less than; > means more than. Absence of an entry indicates that the feature is not a concern or that data were not estimated)

Soil name and map symbol	Hydrologic group	Flooding			High water table			Bedrock		Potential frost action	Risk of corrosion	
		Frequency	Duration	Months	Depth	Kind	Months	Depth	Hardness		Uncoated steel	Concrete
					Ft			In				
10B, 10D---------- Watton	C	None--------	---	---	>6.0	---	---	>60	---	Moderate	Moderate	Low.
11A---------- Alstad	C	None--------	---	---	1.0-2.0	Apparent	Nov-May	>60	---	High-----	Moderate	Moderate.
12---------- Alstad Variant	D	None--------	---	---	+.5-1.0	Apparent	Nov-May	>60	---	High-----	High-----	Low.
13B, 13D---------- Grayling	A	None--------	---	---	>6.0	---	---	>60	---	Low------	Low------	Moderate.
14B, 14D, 14E, 14F---------- Rubicon	A	None--------	---	---	>6.0	---	---	>60	---	Low------	Low------	High.
15B, 15D---------- Champion	B	None--------	---	---	1.0-2.0	Perched	Nov-May	>60	---	Moderate	Moderate	High.
15E---------- Champion	B	None--------	---	---	>6.0	---	---	>60	---	Moderate	Moderate	High.
16A---------- Croswell	A	None--------	---	---	2.0-4.0	Apparent	Nov-May	>60	---	Low------	Low------	Moderate.
17A---------- Au Gres	B	None--------	---	---	0.5-1.5	Apparent	Nov-May	>60	---	Moderate	Low------	Moderate.
18---------- Kinross	A/D	None--------	---	---	+1-1.0	Apparent	Sep-Jun	>60	---	Moderate	High-----	Moderate.
19*:												
Dawson----------	A/D	None--------	---	---	+1-1.0	Apparent	Sep-Jun	>60	---	High-----	High-----	High.
Greenwood--------	A/D	None--------	---	---	+1-1.0	Apparent	Sep-Jun	>60	---	High-----	High-----	High.
20*:												
Carbondale-------	A/D	None--------	---	---	+1-1.0	Apparent	Sep-May	>60	---	High-----	High-----	Moderate.
Tacoosh----------	B/D	None--------	---	---	+1-1.0	Apparent	Sep-May	>60	---	High-----	High-----	Moderate.
21B---------- Allouez	B	None--------	---	---	>6.0	---	---	>60	---	Low------	Low------	High.

See footnote at end of table.

TABLE 17.--SOIL AND WATER FEATURES--Continued

Soil name and map symbol	Hydrologic group	Flooding			High water table			Bedrock		Potential frost action	Risk of corrosion	
		Frequency	Duration	Months	Depth	Kind	Months	Depth	Hardness		Uncoated steel	Concrete
					Ft			In				
23B*, 23D*:												
Munising	B	None	---	---	1.0-2.0	Perched	Nov-May	>60	---	Moderate	Low	High.
Yalmer	B	None	---	---	1.5-2.0	Perched	Mar-May	>60	---	Low	Low	Moderate.
24B Munising	B	None	---	---	1.0-2.0	Perched	Nov-May	>60	---	Moderate	Low	High.
24D Munising	B	None	---	---	>6.0	---	---	>60	---	Moderate	Low	High.
25A Net	C	None	---	---	0.5-1.5	Perched	Nov-May	>60	---	High	Moderate	Moderate.
26 Witbeck	B/D	None	---	---	+.5-1.0	Apparent	Nov-Jun	>60	---	High	High	Moderate.
27B Munising	B	None	---	---	1.0-2.0	Perched	Nov-May	>60	---	Moderate	Low	High.
29D*:												
Grayling	A	None	---	---	>6.0	---	---	>60	---	Low	Low	Moderate.
Kinross	A/D	None	---	---	+1-1.0	Apparent	Sep-Jun	>60	---	Moderate	High	Moderate.
30B, 30D, 30E, 30F Kalkaska	A	None	---	---	>6.0	---	---	>60	---	Low	Low	High.
31B, 31D Kallio	C	None	---	---	0.5-1.5	Perched	Nov-May	>60	---	Moderate	Moderate	Moderate.
32A*:												
Kinross	A/D	None	---	---	+1-1.0	Apparent	Sep-Jun	>60	---	Moderate	High	Moderate.
Croswell	A	None	---	---	2.0-4.0	Apparent	Nov-May	>60	---	Low	Low	Moderate.
33*:												
Histosols.												
Aquents.												
34B Ontonagon	D	None	---	---	>6.0	---	---	>60	---	Moderate	High	Moderate.
35A Rudyard	D	None	---	---	0.5-1.5	Perched	Nov-May	>60	---	Moderate	High	Low.

See footnote at end of table.

TABLE 17.--SOIL AND WATER FEATURES--Continued

Soil name and map symbol	Hydro-logic group	Flooding			High water table			Bedrock		Potential frost action	Risk of corrosion	
		Frequency	Duration	Months	Depth	Kind	Months	Depth	Hardness		Uncoated steel	Concrete
					Ft			In				
36A---------- Skanee	C	None---------	---	---	0.5-1.5	Perched	Nov-May	>60	---	High-----	Moderate	High.
37---------- Pickford	D	None---------	---	---	+1-1.0	Apparent	Nov-Jun	>60	---	Moderate	High-----	Low.
38B---------- Froberg	D	None---------	---	---	>6.0	---	---	>60	---	Moderate	High-----	Moderate.
39B*:												
Munising----------	B	None---------	---	---	1.0-2.0	Perched	Nov-May	>60	---	Moderate	Low------	High.
Skanee----------	C	None---------	---	---	0.5-1.5	Perched	Nov-May	>60	---	High-----	Moderate	High.
43A---------- Moquah	B	Occasional	Brief-----	Sep-Jun	3.0-6.0	Apparent	Nov-May	>60	---	Moderate	Moderate	Moderate.
44B*, 44D*:												
Michigamme-------	C	None---------	---	---	1.0-2.0	Perched	Nov-May	20-40	Hard	Moderate	Low------	High.
Rock outcrop.												
44E*, 44F*:												
Michigamme-------	C	None---------	---	---	>6.0	---	---	20-40	Hard	Moderate	Low------	High.
Rock outcrop.												
47B---------- Yalmer	B	None---------	---	---	1.5-2.0	Perched	Mar-May	>60	---	Low------	Low------	Moderate.
48B---------- Rousseau	A	None---------	---	---	>6.0	---	---	>60	---	Low------	Low------	Moderate.
49---------- Gay	B/D	None---------	---	---	+1-0.5	Apparent	Nov-Jun	>60	---	High-----	High-----	Moderate.
50B, 50D---------- Abbaye	B	None---------	---	---	>6.0	---	---	20-40	Hard	Moderate	Low------	Moderate.
51A---------- Zeba	B	None---------	---	---	0.5-1.5	Apparent	Nov-May	20-40	Hard	High-----	Moderate	Moderate.
52---------- Gay Variant	D	None---------	---	---	+.5-1.0	Apparent	Nov-May	20-40	Hard	High-----	High-----	High.
53B---------- Onota Variant	B	None---------	---	---	>6.0	---	---	10-20	Hard	Low------	Low------	High.

See footnote at end of table.

TABLE 17.--SOIL AND WATER FEATURES--Continued

Soil name and map symbol	Hydrologic group	Flooding			High water table			Bedrock		Potential frost action	Risk of corrosion	
		Frequency	Duration	Months	Depth	Kind	Months	Depth	Hardness		Uncoated steel	Concrete
					Ft			In				
54B, 54D---------- Waiska	B	None---------	---	---	>6.0	---	---	>60	---	Low------	Low------	Moderate.
56A---------- Deerton Variant	A	None---------	---	---	0.5-1.5	Apparent	Nov-May	20-40	Hard	Moderate	Low------	High.
57A*:												
Assinins----------	B	None---------	---	---	0.5-1.0	Apparent	Nov-May	>60	---	High-----	Moderate	Moderate.
Skanee----------	C	None---------	---	---	0.5-1.5	Perched	Nov-May	>60	---	High-----	Moderate	High.
59B, 59D, 59E, 59F---------- Amasa	B	None---------	---	---	>6.0	---	---	>60	---	Moderate	Low------	Moderate.
60B---------- Fence	B	None---------	---	---	>6.0	---	---	>60	---	High-----	Low------	High.
61B, 61D---------- Ishpeming	A	None---------	---	---	>6.0	---	---	20-40	Hard	Low------	Low------	High.
62*. Beaches												
64*. Pits												
65B---------- Ocqueoc	A	None---------	---	---	>6.0	---	---	>60	---	Low------	Moderate	Moderate.
66B*:												
Champion----------	B	None---------	---	---	1.0-2.0	Perched	Nov-May	>60	---	Moderate	Moderate	High.
Net----------	C	None---------	---	---	0.5-1.5	Perched	Nov-May	>60	---	High-----	Moderate	Moderate.
67*:												
Witbeck----------	B/D	None---------	---	---	+.5-1.0	Apparent	Nov-Jun	>60	---	High-----	High-----	Moderate.
Tacoosh----------	B/D	None---------	---	---	+1-1.0	Apparent	Sep-May	>60	---	High-----	High-----	Moderate.
68B, 68D---------- Amasa	B	None---------	---	---	>6.0	---	---	>60	---	Moderate	Low------	Moderate.
69E*, 69F*:												
Yalmer----------	B	None---------	---	---	>6.0	---	---	>60	---	Low------	Low------	Moderate.
Munising----------	B	None---------	---	---	>6.0	---	---	>60	---	Moderate	Low------	High.

See footnote at end of table.

TABLE 17.--SOIL AND WATER FEATURES--Continued

Soil name and map symbol	Hydrologic group	Flooding			High water table			Bedrock		Potential frost action	Risk of corrosion	
		Frequency	Duration	Months	Depth	Kind	Months	Depth	Hardness		Uncoated steel	Concrete
					Ft			In				
70 Winterfield	A/D	Occasional	Brief	Nov-May	0.5-1.5	Apparent	Nov-May	>60	---	Moderate	Low	Low.
71A Pelkie	A	Occasional	Brief	Mar-May	2.5-5.0	Apparent	Nov-May	>60	---	Low	Low	Moderate.
72 Sturgeon	B	Occasional	Brief	Mar-May	0.5-1.5	Apparent	Nov-May	>60	---	High	Moderate	Moderate.
73 Arnheim	D	Occasional	Brief	Nov-May	0-1.0	Apparent	Nov-May	>60	---	High	High	Moderate.
74B Waiska Variant	B	None	---	---	>6.0	---	---	>60	---	Low	Low	High.
75D Fence	B	None	---	---	>6.0	---	---	>60	---	High	Low	High.
76A Allendale	B	None	---	---	1.0-2.0	Apparent	Nov-May	>60	---	Moderate	High	Moderate.
77A*:												
Udipsamments.												
Udorthents.												
78B*, 78D*:												
Champion	B	None	---	---	1.0-2.0	Perched	Nov-May	>60	---	Moderate	Moderate	High.
Michigamme	C	None	---	---	1.0-2.0	Perched	Nov-May	20-40	Hard	Moderate	Low	High.
78E*:												
Champion	B	None	---	---	>6.0	---	---	>60	---	Moderate	Moderate	High.
Michigamme	C	None	---	---	>6.0	---	---	20-40	Hard	Moderate	Low	High.
79B, 79D Nunica	C	None	---	---	>6.0	---	---	>60	---	Moderate	Moderate	Low.
80A Bowers	C	None	---	---	1.0-2.0	Apparent	Nov-Apr	>60	---	High	High	Low.
81A Burt Variant	D	None	---	---	0.5-1.0	Apparent	Nov-May	10-20	Hard	Low	Low	High.
82 Roscommon Variant	D	None	---	---	+.5-1.0	Apparent	Nov-May	20-40	Hard	Moderate	High	High.

See footnote at end of table.

TABLE 17.--SOIL AND WATER FEATURES--Continued

Soil name and map symbol	Hydrologic group	Flooding			High water table			Bedrock		Potential frost action	Risk of corrosion	
		Frequency	Duration	Months	Depth	Kind	Months	Depth	Hardness		Uncoated steel	Concrete
					Ft			In				
83E*:												
Nunica	C	None	---	---	>6.0	---	---	>60	---	Moderate	Moderate	Low.
Ontonagon	D	None	---	---	>6.0	---	---	>60	---	Moderate	High	Moderate.
84A Channing	B	None	---	---	0.5-1.5	Apparent	Nov-May	>60	---	High	Moderate	Moderate.
86A*:												
Net	C	None	---	---	0.5-1.5	Perched	Nov-May	>60	---	High	Moderate	Moderate.
Witbeck	B/D	None	---	---	+.5-1.0	Apparent	Nov-Jun	>60	---	High	High	Moderate.
87A*:												
Skanee	C	None	---	---	0.5-1.5	Perched	Nov-May	>60	---	High	Moderate	High.
Gay	B/D	None	---	---	+1-0.5	Apparent	Nov-Jun	>60	---	High	High	Moderate.
88B*:												
Munising	B	None	---	---	1.0-2.0	Perched	Nov-May	>60	---	Moderate	Low	High.
Yalmer	B	None	---	---	1.5-2.0	Perched	Mar-May	>60	---	Low	Low	Moderate.
88D*:												
Munising	B	None	---	---	>6.0	---	---	>60	---	Moderate	Low	High.
Yalmer	B	None	---	---	>6.0	---	---	>60	---	Low	Low	Moderate.
88E*:												
Yalmer	B	None	---	---	>6.0	---	---	>60	---	Low	Low	Moderate.
Munising	B	None	---	---	>6.0	---	---	>60	---	Moderate	Low	High.
91B*, 91D*, 91E*, 92B*, 92D*, 92E*:												
Keweenaw	A	None	---	---	>6.0	---	---	>60	---	Low	Low	Moderate.
Kalkaska	A	None	---	---	>6.0	---	---	>60	---	Low	Low	High.
93B*, 93D*:												
Deerton	A	None	---	---	>6.0	---	---	20-40	Soft	Low	Low	High.
Abbaye	B	None	---	---	>6.0	---	---	20-40	Hard	Moderate	Low	Moderate.
94B Deerton	A	None	---	---	>6.0	---	---	20-40	Soft	Low	Low	High.
95B, 95D Amasa	B	None	---	---	>6.0	---	---	>60	---	Moderate	Low	Moderate.

See footnote at end of table.

TABLE 17.--SOIL AND WATER FEATURES--Continued

Soil name and map symbol	Hydrologic group	Flooding			High water table			Bedrock		Potential frost action	Risk of corrosion	
		Frequency	Duration	Months	Depth	Kind	Months	Depth	Hardness		Uncoated steel	Concrete
					Ft			In				
96A---------- Richter Variant	B	None---------	---	---	0.5-1.5	Apparent	Nov-May	>60	---	High------	Moderate	Moderate.
98A*:												
Burt Variant-----	D	None---------	---	---	0.5-1.0	Apparent	Nov-May	10-20	Hard	Low-------	Low-------	High.
Burt----------	D	None---------	---	---	+.5-1.0	Apparent	Oct-Jun	10-20	Hard	Moderate	High------	High.
99B*, 99D*:												
Rubicon----------	A	None---------	---	---	>6.0	---	---	>60	---	Low-------	Low-------	High.
Rousseau---------	A	None---------	---	---	>6.0	---	---	>60	---	Low-------	Low-------	Moderate.
Ocqueoc----------	A	None---------	---	---	>6.0	---	---	>60	---	Low-------	Moderate	Moderate.
100B, 100D, 100E-- Amasa	B	None---------	---	---	>6.0	---	---	>60	---	Moderate	Low-------	Moderate.
101E*, 101F*:												
Peshekee---------	D	None---------	---	---	>6.0	---	---	10-20	Hard	Moderate	Low-------	High.
Rock outcrop.												
102A---------- Channing	B	None---------	---	---	0.5-1.5	Apparent	Nov-May	>60	---	High------	Moderate	Moderate.
105*:												
Pits.												
Dumps.												
106B---------- Yalmer	B	None---------	---	---	1.5-2.0	Perched	Mar-May	>60	---	Low-------	Low-------	Moderate.
107F*:												
Rousseau---------	A	None---------	---	---	>6.0	---	---	>60	---	Low-------	Low-------	Moderate.
Ocqueoc----------	A	None---------	---	---	>6.0	---	---	>60	---	Low-------	Moderate	Moderate.
108B*:												
Champion---------	B	None---------	---	---	1.0-2.0	Perched	Nov-May	>60	---	Moderate	Moderate	High.
Net----------	C	None---------	---	---	0.5-1.5	Perched	Nov-May	>60	---	High------	Moderate	Moderate.
Michigamme-------	C	None---------	---	---	1.0-2.0	Perched	Nov-May	20-40	Hard	Moderate	Low-------	High.
109F*:												
Rousseau---------	A	None---------	---	---	>6.0	---	---	>60	---	Low-------	Low-------	Moderate.

See footnote at end of table.

TABLE 17.--SOIL AND WATER FEATURES--Continued

Soil name and map symbol	Hydrologic group	Flooding			High water table			Bedrock		Potential frost action	Risk of corrosion	
		Frequency	Duration	Months	Depth	Kind	Months	Depth	Hardness		Uncoated steel	Concrete
					Ft			In				
109F*:												
Fence	B	None	---	---	>6.0	---	---	>60	---	High	Low	High.
Ocqueoc	A	None	---	---	>6.0	---	---	>60	---	Low	Moderate	Moderate.
110E*:												
Ishpeming	A	None	---	---	>6.0	---	---	20-40	Hard	Low	Low	High.
Rock outcrop.												
111B*:												
Yalmer	B	None	---	---	1.5-2.0	Perched	Mar-May	>60	---	Low	Low	Moderate.
Assinins	B	None	---	---	0.5-1.0	Apparent	Nov-May	>60	---	High	Moderate	Moderate.
112A Assinins	B	None	---	---	0.5-1.0	Apparent	Nov-May	>60	---	High	Moderate	Moderate.
113B, 113D Petticoat	B	None	---	---	>6.0	---	---	>60	---	Moderate	Low	Moderate.
114B, 114E Peshekee Variant	C	None	---	---	>6.0	---	---	10-20	Hard	Moderate	Low	Moderate.
115D*:												
Munising	B	None	---	---	1.0-2.0	Perched	Nov-May	>60	---	Moderate	Low	High.
Michigamme	C	None	---	---	1.0-2.0	Perched	Nov-May	20-40	Hard	Moderate	Low	High.
115E*:												
Munising	B	None	---	---	>6.0	---	---	>60	---	Moderate	Low	High.
Michigamme	C	None	---	---	>6.0	---	---	20-40	Hard	Moderate	Low	High.
116F*:												
Udorthents.												
Udipsamments.												

* See description of the map unit for composition and behavior characteristics of the map unit.

TABLE 18.--CLASSIFICATION OF THE SOILS

(An asterisk in the first column indicates that the soil is a taxadjunct to the series. See text for a description of those characteristics of the soil that are outside the range of the series)

Soil name	Family or higher taxonomic class
Abbaye	Coarse-loamy, mixed, frigid Alfic Haplorthods
Allendale	Sandy over clayey, mixed, frigid Alfic Haplaquods
Allouez	Sandy-skeletal, mixed, frigid Typic Haplumbrepts
Alstad	Fine-loamy, mixed Aquic Eutroboralfs
Alstad Variant	Fine-loamy, mixed, nonacid, frigid Typic Haplaquepts
Amasa	Coarse-loamy over sandy or sandy-skeletal, mixed, frigid Typic Haplorthods
Aquents	Mixed, nonacid, frigid Aquents
Arnheim	Coarse-loamy, mixed, nonacid, frigid Aeric Fluvaquents
Assinins	Coarse-loamy, mixed, frigid Alfic Haplaquods
Au Gres	Sandy, mixed, frigid Entic Haplaquods
Bowers	Fine, mixed Aquic Eutroboralfs
Burt	Siliceous, frigid Lithic Psammaquents
Burt Variant	Sandy-skeletal, siliceous, frigid Lithic Haplaquents
Carbondale	Euic Hemic Borosaprists
Champion	Coarse-loamy, mixed, frigid Typic Fragiorthods
Channing	Coarse-loamy over sandy or sandy-skeletal, mixed, frigid Entic Haplaquods
Croswell	Sandy, mixed, frigid Entic Haplorthods
Dawson	Sandy or sandy-skeletal, mixed, dysic Terric Borosaprists
Deerton	Sandy, mixed, frigid Entic Haplorthods
Deerton Variant	Sandy, mixed, frigid Entic Haplaquods
Fence	Coarse-silty, mixed, frigid Alfic Haplorthods
Froberg	Clayey over loamy, mixed Typic Eutroboralfs
Gay	Coarse-loamy, mixed, nonacid, frigid Typic Haplaquepts
Gay Variant	Coarse-loamy, mixed, nonacid, frigid Typic Haplaquepts
Grayling	Mixed, frigid Typic Udipsamments
Greenwood	Dysic Typic Borohemists
Histosols	Euic, frigid Histosols
Ishpeming	Sandy, mixed, frigid Entic Haplorthods
*Kalkaska	Sandy, mixed, frigid Typic Haplorthods
Kallio	Coarse-loamy, mixed, frigid Alfic Fragiorthods
Keweenaw	Sandy, mixed, frigid Alfic Haplorthods
Kinross	Sandy, mixed, frigid Typic Haplaquods
Michigamme	Coarse-loamy, mixed, frigid Typic Haplorthods
Moquah	Coarse-loamy, mixed, nonacid, frigid Typic Udifluvents
Munising	Coarse-loamy, mixed, frigid Alfic Fragiorthods
Net	Coarse-loamy, mixed, frigid Typic Fragiaquods
Nunica	Fine-silty, mixed Eutric Glossoboralfs
Ocqueoc	Sandy over loamy, mixed, frigid Entic Haplorthods
Onota Variant	Sandy-skeletal, mixed, frigid Lithic Udorthents
*Ontonagon	Very fine, mixed Glossic Eutroboralfs
Pelkie	Mixed, frigid Typic Udipsamments
Peshekee	Loamy, mixed, frigid Lithic Haplorthods
Peshekee Variant	Loamy-skeletal, mixed, frigid Lithic Udorthents
Petticoat	Coarse-loamy over sandy or sandy-skeletal, mixed, frigid Alfic Haplorthods
Pickford	Fine, mixed, nonacid, frigid Typic Haplaquepts
Richter Variant	Coarse-silty, mixed Aquic Glossoboralfs
Roscommon Variant	Sandy, mixed, frigid Histic Humaquepts
Rousseau	Sandy, mixed, frigid Entic Haplorthods
Rubicon	Sandy, mixed, frigid Entic Haplorthods
*Rudyard	Very fine, illitic Aquic Eutroboralfs
Skanee	Coarse-loamy, mixed, frigid Alfic Fragiaquods
Sturgeon	Coarse-silty over sandy or sandy-skeletal, mixed, nonacid, frigid Aquic Udifluvents
Tacoosh	Loamy, mixed, euic Terric Borohemists
Udipsamments	Mixed, frigid Udipsamments
Udorthents	Loamy, mixed, nonacid, frigid Udorthents
Waiska	Sandy-skeletal, mixed, frigid Typic Haplorthods
Waiska Variant	Sandy-skeletal, mixed, frigid Typic Udorthents
Watton	Fine-loamy, mixed Eutric Glossoboralfs
Winterfield	Mixed, frigid Aquic Udipsamments
Witbeck	Coarse-loamy, mixed, nonacid, frigid Histic Humaquepts
Yalmer	Sandy, mixed, frigid Alfic Fragiorthods
Zeba	Coarse-loamy, mixed, frigid Alfic Haplaquods

Interpretive Groups

INTERPRETIVE GROUPS

(Dashes indicate that the soil is not placed in the interpretive group)

Soil name and map symbol	Land capability	Prime farmland	Habitat type		Woodland ordination symbol	Michigan soil management group
			Primary	Secondary		
10B---------- Watton	IIe	Yes	ATD	---	3A	1.5a
10D---------- Watton	IVe	---	ATD	---	3A	1.5a
11A---------- Alstad	IIw	Yes*	ATD	TMC	3W	1.5b
12---------- Alstad Variant	IIw	---	FI	FMC	6W	1.5c
13B---------- Grayling	VIs	---	PVD	AQVac	5S	5.7a
13D---------- Grayling	VIs	---	PVD	AQVac	5S	5.7a
14B---------- Rubicon	VIs	---	AQVac	TMV	4S	5.3a
14D---------- Rubicon	VIs	---	AQVac	TMV	4S	5.3a
14E---------- Rubicon	VIIs	---	AQVac	TMV	4R	5.3a
14F---------- Rubicon	VIIs	---	AQVac	TMV	4R	5.3a
15B---------- Champion	VIs	---	ATD	---	3W	3a-af
15D---------- Champion	VIs	---	ATD	---	3W	3a-af
15E---------- Champion	VIIs	---	ATD	---	3R	3a-af
16A---------- Croswell	IVs	---	TMV	QAE	5S	5a
17A---------- Au Gres	IVw	---	TMC	QAE	6W	5b
18---------- Kinross	VIw	---	TMC	PCS	2W	5c-a
19----------	VIIw	---	PCS	---		
Dawson----------					2W	M/4c-a
Greenwood----------					2W	Mc-a
20----------	VIw	---	TTS	---		
Carbondale----------					5W	Mc
Tacoosh----------					5W	M/3c
21B---------- Allouez	VIs	---	AVO	---	3A	Ga
23B----------	IIIe	---	TM	ATD		
Munising----------					3W	3a-af
Yalmer----------					3D	4a-af

See footnote at end of table.

INTERPRETIVE GROUPS--Continued

Soil name and map symbol	Land capability	Prime farmland	Habitat type		Woodland ordination symbol	Michigan soil management group
			Primary	Secondary		
23D	IVe	---	TM	ATD		
Munising					3W	3a-af
Yalmer					3D	4a-af
24B Munising	IIIe	---	TM	ATD	3R	3a-af
24D Munising	VIe	---	TM	ATD	3R	3a-af
25A Net	VIIw	---	TMC	ATD	2X	3b-af
26 Witbeck	VIIw	---	TMC	TTS	3X	3c
27B Munising	IIe	---	TM	ATD	3W	3a-af
29D	VIIs	---	AQVac	PCS		
Grayling					5S	5.7a
Kinross					2W	5c-a
30B Kalkaska	IVs	---	TM	ATD	3S	5a
30D Kalkaska	VIs	---	TM	ATD	3S	5a
30E Kalkaska	VIIs	---	TM	ATD	3R	5a
30F Kalkaska	VIIs	---	TM	ATD	3R	5a
31B Kallio	VIs	---	ATD	---	3W	3/2a-f
31D Kallio	VIs	---	ATD	---	3W	3/2a-f
32A	VIw	---	PCS	QAE		
Kinross					2W	5c-a
Croswell					5S	5a
33. Histosols and Aquents						
34B Ontonagon	IIIe	---	TM	ATD	2C	0a
35A Rudyard	IIIw	---	TMC	ATD	6W	0b
36A Skanee	IIw	---	ATD	TMC	3W	3b-af
37 Pickford	IIIw	---	FI	TTS	6W	1c
38B Froberg	IIIe	---	ATD	---	3C	1a

See footnote at end of table.

INTERPRETIVE GROUPS--Continued

Soil name and map symbol	Land capability	Prime farmland	Habitat type		Woodland ordination symbol	Michigan soil management group
			Primary	Secondary		
39B	IIe	---	TM	TMC		
Munising					3W	3a-af
Skanee					3W	3b-af
43A Moquah	IIIw	Yes	AOC	AVO	3A	L-2a
44B	VIs	---	ATD	TM		
Michigamme					3W	3/Ra
Rock outcrop.						
44D	VIs	---	ATD	TM		
Michigamme					3W	3/Ra
Rock outcrop.						
44E	VIIs	---	ATD	TM		
Michigamme					3R	3/Ra
Rock outcrop.						
44F	VIIs	---	ATD	TM		
Michigamme					3R	3/Ra
Rock outcrop.						
47B Yalmer	IIIs	---	TM	ATD	3D	4a-af
48B Rousseau	IIIs	---	TM	TMV	5S	4a
49 Gay	Vw	---	FI	TTS	7W	3c
50B Abbaye	IIIe	---	ATD	---	3S	3/Ra
50D Abbaye	IVe	---	ATD	---	3S	3/Ra
51A Zeba	IIIw	---	TMC	TM	2W	3/Rbc
52 Gay Variant	Vw	---	TTS	FI	2W	3/Rbc
53B Onota Variant	VIIs	---	ATD	---	3D	G/Ra
54B Waiska	VIs	---	ATD	AVO	3S	Ga
54D Waiska	VIs	---	ATD	AVO	3S	Ga
56A Deerton Variant	IVw	---	ATD	TM	2W	4/Rbc
57A	IIIw	---	ATD	TMC		
Assinins					3W	4b
Skanee					3W	3b-af
59B Amasa	VIs	---	ATD	TM	3A	3/5a-a

See footnote at end of table.

INTERPRETIVE GROUPS--Continued

Soil name and map symbol	Land capability	Prime farmland	Habitat type		Woodland ordination symbol	Michigan soil management group
			Primary	Secondary		
59D---------- Amasa	VIs	---	ATD	TM	3A	3/5a-a
59E---------- Amasa	VIIs	---	ATD	TM	3R	3/5a-a
59F---------- Amasa	VIIs	---	ATD	TM	3R	3/5a-a
60B---------- Fence	IIe	Yes	AVO	ATD	3A	3a
61B---------- Ishpeming	IVs	---	ATD	TM	5S	4/Ra
61D---------- Ishpeming	VIs	---	ATD	TM	5S	4/Ra
62. Beaches						
64. Pits						
65B---------- Ocqueoc	IIIs	---	ATD	TM	3S	4/2a
66B----------	VIs	---	ATD	TMC		
Champion----------					3W	3a-af
Net----------					2X	3b-af
67----------	VIIw	---	TTS	---		
Witbeck----------					3X	3c
Tacoosh----------					5W	M/3c
68B---------- Amasa	IIe	Yes	TMV	ATD	2A	3/5a-a
68D---------- Amasa	IIIe	---	TMV	ATD	2A	3/5a-a
69E----------	VIIe	---	TM	ATD		
Yalmer----------					3R	4a-af
Munising----------					3R	3a-af
69F----------	VIIe	---	TM	ATD		
Yalmer----------					3R	4a-af
Munising----------					3R	3a-af
70---------- Winterfield	IVw	---	AVO	ATD	6W	L-4c
71A---------- Pelkie	IVs	---	AVO	---	3S	L-4a
72---------- Sturgeon	IIIw	Yes*	AVO	ATD	3W	L-2b
73---------- Arnheim	Vw	---	FMC	FI	5W	L-2c
74B---------- Waiska Variant	VIs	---	ATD	TM	2S	Ga

See footnote at end of table.

INTERPRETIVE GROUPS--Continued

Soil name and map symbol	Land capability	Prime farmland	Habitat type		Woodland ordination symbol	Michigan soil management group
			Primary	Secondary		
75D---------- Fence	VIe	---	AVO	ATD	3R	3a
76A---------- Allendale	IIIw	---	ATD	TMC	4W	4/1b
77A. Udipsamments and Udorthents						
78B----------	VIs	---	ATD	TM		
Champion----------					3W	3a-af
Michigamme----------					3W	3/Ra
78D----------	VIs	---	ATD	TM		
Champion----------					3W	3a-af
Michigamme----------					3W	3/Ra
78E----------	VIIs	---	ATD	TM		
Champion----------					3R	3a-af
Michigamme----------					3R	3/Ra
79B---------- Nunica	IIe	Yes	ATD	---	3A	1.5a
79D---------- Nunica	IIIe	---	ATD	---	3R	1.5a
80A---------- Bowers	IIw	Yes*	TMC	ATD	7W	1.5b
81A---------- Burt Variant	VIIw	---	TMC	---	2W	Rbc
82---------- Roscommon Variant	VIw	---	TMC	TTS	2W	4/Rbc
83E----------	VIIe	---	ATD	TM		
Nunica----------					3R	1.5a
Ontonagon----------					2R	0a
84A---------- Channing	IIIw	---	TMC	TMV	2W	3/5b-a
86A----------	VIIw	---	TMC	FI		
Net----------					2X	3b-af
Witbeck----------					3X	3c
87A----------	IIw	---	TMC	FI		
Skanee----------					3W	3b-af
Gay----------					7W	3c
88B----------	IIIe	---	TM	ATD		
Munising----------					3R	3a-af
Yalmer----------					3R	4a-af
88D----------	VIe	---	TM	ATD		
Munising----------					3R	3a-af
Yalmer----------					3R	4a-af
88E----------	VIIe	---	TM	ATD		
Yalmer----------					3R	4a-af
Munising----------					3R	3a-af

See footnote at end of table.

INTERPRETIVE GROUPS--Continued

Soil name and map symbol	Land capability	Prime farmland	Habitat type		Woodland ordination symbol	Michigan soil management group
			Primary	Secondary		
91B	IIIe	---	ATD	TM		
Keweenaw					3S	4a-a
Kalkaska					3S	5a
91D	IVe	---	ATD	TM		
Keweenaw					3S	4a-a
Kalkaska					3S	5a
91E	VIe	---	ATD	TM		
Keweenaw					3R	4a-a
Kalkaska					3R	5a
92B	IIIe	---	TM	ATD		
Keweenaw					3R	4a-a
Kalkaska					3R	5a
92D	VIe	---	TM	ATD		
Keweenaw					3R	4a-a
Kalkaska					3R	5a
92E	VIIe	---	TM	ATD		
Keweenaw					3R	4a-a
Kalkaska					3R	5a
93B	IVs	---	ATD	TM		
Deerton					3R	4/Ra
Abbaye					3R	3/Ra
93D	VIIs	---	ATD	TM		
Deerton					3R	4/Ra
Abbaye					3R	3/Ra
94B Deerton	IVs	---	ATD	TM	3S	4/Ra
95B Amasa	IIe	Yes	ATD	TM	3A	3/5a-a
95D Amasa	IIIe	---	ATD	TM	3A	3/5a-a
96A Richter Variant	IIw	Yes*	TMC	TM	2W	3b-s
98A	VIIw	---	TMC	TTS		
Burt Variant					2W	Rbc
Burt					2W	Rbc
99B	VIs	---	TMV	AQVac		
Rubicon					4S	5.3a
Rousseau					5S	4a
Ocqueoc					3S	4/2a
99D	VIs	---	TMV	AQVac		
Rubicon					4S	5.3a
Rousseau					5S	4a
Ocqueoc					3S	4/2a
100B Amasa	VIs	---	ATD	---	3A	3/5a-a
100D Amasa	VIs	---	ATD	---	3A	3/5a-a
100E Amasa	VIIs	---	ATD	---	3R	3/5a-a

See footnote at end of table.

INTERPRETIVE GROUPS--Continued

Soil name and map symbol	Land capability	Prime farmland	Habitat type		Woodland ordination symbol	Michigan soil management group
			Primary	Secondary		
101E---------- Peshekee---------- Rock outcrop.	VIIs	---	TMV	ATD	2R	Ra
101F---------- Peshekee---------- Rock outcrop.	VIIs	---	TMV	ATD	2R	Ra
102A---------- Channing	VIIw	---	TMC	---	2X	3/5b-a
105. Pits and Dumps						
106B---------- Yalmer	IIIs	---	TM	ATD	3D	4a-af
107F---------- Rousseau---------- Ocqueoc----------	VIIe	---	ATD	TM	5R 3R	4a 4/2a
108B---------- Champion---------- Net---------- Michigamme----------	VIs	---	ATD	TMC	3W 2X 3W	3a-af 3b-af 3/Ra
109F---------- Rousseau---------- Fence---------- Ocqueoc----------	VIIe	---	TM	ATD	5R 3R 3R	4a 3a 4/2a
110E---------- Ishpeming---------- Rock outcrop.	VIIs	---	ATD	TM	5R	4/Ra
111B---------- Yalmer---------- Assinins----------	IIIs	---	TM	ATD	3D 3W	4a-af 4b
112A---------- Assinins	IIIw	---	ATD	TMC	3W	4b
113B---------- Petticoat	VIs	---	AVO	ATD	3A	3/5a
113D---------- Petticoat	VIs	---	AVO	ATD	3A	3/5a
114B---------- Peshekee Variant	VIIs	---	ATD	AVO	3X	Ra
114E---------- Peshekee Variant	VIIs	---	ATD	AVO	3R	Ra
115D---------- Munising---------- Michigamme----------	VIe	---	ATD	---	3W 3W	3a-af 3/Ra
115E---------- Munising---------- Michigamme----------	VIIs	---	ATD	---	3R 3R	3a-af 3/Ra
116F. Udorthents and Udipsamments						

* Where drained.

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